This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

COUNTWAY LIBRARY
HC 2IMG 1

THE BEDROCK OF HEALTH

Ebbard

BOSTON MEDICAL
APR 14 1964
LIBRARY

t. 3751

THE "NEW SELF-HELP" SERIES. No. 6.

THE BEDROCK OF HEALTH

THE
BEDROCK OF HEALTH

BASED ON

THE ANTI-COLLÆMIC RADICAL CURE

OF DISEASES AND CHRONIC DISORDERS

A NEW CURATIVE SYSTEM FOUNDED ON THE SUCCESSFUL
RESULTS OF MODERN SCIENTIFIC RESEARCH AND
PRACTICAL EXPERIENCE, LUCIDLY DELINEATED
FOR THE PURPOSE OF

SELF-TREATMENT WITHOUT PHYSIC

BY
e
RICHARD J. EBBARD

AND

F. W. VOGT

AUTHORS OF "WILL-POWER," "LIFE-GIVING ENERGY,"
"NON-COMATOSE SUGGESTION," ETC.

London
THE MODERN MEDICAL PUBLISHING COMPANY
57 AND 58, CHANCERY LANE, W.C.
1906

40837 Bi

Entered at Stationers' Hall
[*Copyright and all rights reserved*]

CONTENTS

PAGE
Prefatory Note ix

PART I

The Nature and Cause of Disease; its Treatment by Natural Means without the Use of Medicaments and Poisons

CHAPTER I

The Nature of Disease according to the Latest Researches 3

CHAPTER II

The Fundamental Principles of a Rational Anti-Toxic Natural Method of Cure 70

CHAPTER III

The Anti-Toxic Blood Regeneration according to Dr. Haig . 81
  a. The Experiment of the Capillary Reflux of the Blood (ascertaining the Presence of Blood-poisons in the System) 85
  b. Dr. Haig's Dietetic Precepts 88

CHAPTER IV

The Anti-Toxic Blood Regeneration according to Dr. Cantani 100

PART II

The Anti-Collæmic Cure

CHAPTER I

PAGE
A NEW FUNDAMENTAL PRINCIPLE IN THERAPEUTICS . . 121

CHAPTER II

The Anti-Collæmic Radical Cure

COMBUSTION AND ELIMINATION OF THE BLOOD-POISONS BY ECONOMISING THE OXYGEN, ACCORDING TO CANTANI'S PRINCIPLE 141
Dietetic Specifics for the Anti-Toxic Regeneration of the Blood 144
Dr. Kellogg's Foods 167
General Hints and Rules 171

MENU I

of the Anti-Collæmic Radical Cure

FIRST STAGE OF HEIGHTENED OXIDATION 176
Beverages 183
Memoranda 184
Addendum to Menu I. 188

MENU II

of the Anti-Collæmic Radical Cure

SECOND STAGE OF HEIGHTENED OXIDATION 193
Addendum to Menu II. 197
How to follow out the Anti-Collæmic Radical Cure in Principle 198

CHAPTER III

The Anti-Collæmic Radical Cure

COMBUSTION AND ELIMINATION OF THE BLOOD-POISONS THROUGH INCREASED ACTIVITY OF THE HEART, IN CONSEQUENCE OF A "DRY-DIET," *i.e.*, REDUCTION OF THE BLOOD-COLUMN . 201

MENU III

of the Anti-Collæmic Radical Cure

PAGE
THIRD STAGE OF HEIGHTENED OXIDATION 204

MENU IV

of the Anti-Collæmic Radical Cure

FOURTH STAGE OF HEIGHTENED OXIDATION . . . 208
    Schroth's "Dry-diet" 210
    Schroth's Compresses 219

CHAPTER IV

THE NEW-VEGETARIANISM 228

CHAPTER V

ANALYSIS OF THE URINE 231

PART III

Suggestion

PSYCHOTHERAPEUTICS AND NON-COMATOSE AUTO-SUGGESTION . 237

PART IV

The Various Diseases and their Treatment

THE PRACTICAL APPLICATION OF THE ANTI-COLLÆMIC RADICAL CURE IN DISEASES OF THE VARIOUS ORGANS . . . 243
    a. Diseases of the Bony System 245
    b. Diseases of the Muscular System . . . 246
    c. Diseases of the Digestive System . . . 247
        Constipation 248
    d. Diseases of the Blood-circulation . . 261
        Diabetes 262
        Menu against Diabetes 263
        Beverages, &c. 266

PAGE
e. Diseases of the Urinary Organs . . . 276
f. Diseases of the Respiratory Organs . . . 277
g. Diseases of the Sensory Organs . . . 277
h. Diseases of the Nervous System . . . 278
i. Diseases of the Sexual Organs 282
k. Sexual Neurasthenia 283
l. General Acute Infectious Diseases and Neoplasms . 285

GLOSSARY 287

MOTTO: *Natura sanat, medicus curat.*

PREFATORY NOTE

IN offering the present volume to the suffering world we do so with a great amount of confidence, seeing in what kindly fashion our previous humble efforts have been received. In this treatise we have essayed the ambitious task of treating the inception and curation of disease from a more philosophical standpoint than we have reason to believe is usual; have endeavoured to trace the causes which lead to morbid conditions of the body; and, finally, have given a scheme of natural and logical treatment without the use of drugs. As will be observed by the careful reader, the whole system of cure is based on one ***undoubted fact*** that years of study and experience have evolved, viz., ***that all diseases proceed primarily from an impure state of the blood:*** hence, CLEANSE THE BLOOD AND YOU RESTORE HEALTH. It has been found that the chief, if not the only, important factor in the causation of disease is a morbid or poisoned condition of the blood. To explain this phenomenon we have coined—we hope intelligibly—the word "*Blood-poison*"; and as this expression will be so frequently made use of in the following pages, it may be as well to state clearly that we use the term in a general sense to indicate any substance or liquid which acts in the blood in a health-undermining manner. We think it as well to make this explanation, as many agents which we stigmatise as blood-poisons are in familiar use and the term employed may therefore occasion surprise. As the recognition of the reasons underlying any principle is of the utmost importance in giving an *intelligent* grasp of the subject, we have devoted a considerable space to the elucidation of the theoretical and logical deductions on which our "Anti-Collæmic Cure" is based. We would wish that all into whose hands this book may fall would read carefully this section; but in view of the fact that most sufferers are more concerned with the question of the *cure* of their disease rather than any consideration of the causes that led up to it, we may point out that on page 121 will be found the second and practical part of our treatise, wherein the patient will find all the necessary instructions for immediately putting the treatment into practice.

We wish it to be distinctly understood that this work does not lay any pretence to being a literary *tour de force*; on the contrary, we are painfully aware of many shortcomings in this respect. We have aimed at writing a *practical* work that will be a real aid to the sufferer, and to this end the seemingly many redundancies appear by intention, as we would rather mar the book as a literary effort by reiteration of important details than detract from its helpfulness by aiming at "style."

In conclusion, we wish from our hearts all success to those who pursue the treatment, and we have every hope that those who despairingly cling to it as a last resource will in no way find their confidence misplaced.

We wish to express thanks here to our friend, Mr. Frederick L. Rose, who has kindly rendered us great assistance in preparing the small glossary with which we close the volume, and also in revision of proofs. We are also greatly indebted to our printers, Messrs. Unwin Brothers, Ltd., whose intelligent handling of our at times somewhat involved manuscript has rendered the usual drudgery of press revision almost a sinecure.

R. J. E.
F. W. V.

PART I

The Nature and Cause of Disease; its Treatment by Natural Means without the Use of Medicaments and Poisons

CHAPTER I

THE NATURE OF DISEASE ACCORDING TO THE LATEST RESEARCHES

THE chief aim of the following pages is to be essentially *practical!* The authors have no desire to add to the vast number of medical, anatomical, and physiological text-books already within reach of the reader, their earnest endeavours are rather directed towards learning to understand the nature of disease and to build up a system of rational therapeutics based on the logical conclusions drawn from such investigations.

The authors will, therefore, disregard all the endless controversies in favour of all kinds of therapeutical systems and one-sided methods of treatment of disease which have been at all times, and are still carried on, with so much dogmatic asperity. These very controversies characterise medical science as a chaos wherein the searching mind vainly strives for a firm footing and reliable basis of support. The human organism in all its immense complexity is the greatest miracle of all miracles, and we have so little notion of the inner forces and actuating factors which vitalise this organism, that our attempts at divination are reduced to mere guess-work, or, at best, probing and experimenting. This experimenting and groping about is not only characteristic of orthodox medicine, but equally so of all so-called natural methods of healing which have sprung up from time to time. The representatives of the latter "persuasion" have been more successful in their "groping" only insomuch as their correct instinct induced them to allow Nature, *i.e.*, the vital and curative forces, or life-capacity, inherent in the organism, a free hand. But as to the nature of disease, and the exact action of their methods of cure, these natural healers have been lucky guessers rather than positive investigators. The discoverers who, as pioneers of thought and physiological utilisation of their discoveries, spread the light of true science and scientific conception, are few and far between. When Priessnitz, for example, maintained that "most diseases originated in a kind of stagnation of accumulated morbid matter, a large portion of which had found its way into the system of the patient from the drug-store," he undoubtedly uttered a great truth which his numerous successful cures help to confirm. Still more striking were the results of the dry-diet according to Schroth, whose excellent gift of observation led him to the principles of his method, and whose conception of the nature of disease was similar to that of Priessnitz's. But with Priessnitz and Schroth, as well as with the majority of "nature-doctors," it is merely a matter of conjecture and hypothesis, and luckily-guessed truths. This guessing, however, furnishes fragments only, but no *scientific* evidence, which "nature-doctors" have as yet ever failed to produce. Even scientifically trained physicians but rarely succeed in this respect, and until quite recently the nature of disease has been a book with seven seals protected. With the exception of palpable injuries and anatomical obstacles, the huge host of diseases has been a *terra incognita* as far as their inner nature and causation went. Platitudes and empty assertions, at times savouring of mediæval primitiveness, held unconditional sway, and the doctors generally contented themselves with elaborate stop-gaps. We need only instance the catch-phrase "caught a chill or a cold." What a multitude of ignorance and scientific indifference is covered by that much-abused "cold." Before ever we can hope to establish anything like a really reliable method of cure, we must endeavour to attain to a clear and intelligent conception of the nature of disease. Lacking this, we shall go astray and grope in the dark over and over again. The following delineations are thus of paramount importance, for only he who knows the cause of his complaint can hope to combat it with a view to ultimate success.

The first great triumph was celebrated by "philosophical medicine," if we may be permitted to introduce this—to us quite correct and logical—term, through the discovery of the micro-organisms or bacteriæ as the disease-originators in so-called infectious diseases. This triumph in medicine is on the same level with the triumph of Darwinism in biology. Much the same as the latter affords us the first natural and comprehensible interpretation of the lawful nature of organic variation and gradatory evolution, so also does the discovery of the microbes for the first time reveal to us the material causes and vehicles of a specific category of diseases. (The latest controversies about certain exaggerations of bacteriological research do not concern us here.)

Thus inquiry into the causation of all other diseases was initiated and stimulated. The most important outcome of the discovery of bacteric disease-origination was undoubtedly the recognition of the fact that the organism can only be disturbed in its regular functions by the introduction of foreign elements, or, in order to generalise this, by such elements which do not adapt themselves to the normal metabolic process, be they introduced into the organism from outside or generated within the organism itself.

Such a theory is convincing and perspicuous. For what indeed should disturb a congenitally healthy organ in its normal function but a foreign body? The effect of this foreign body is only a secondary consideration—we need not even always know it; the method of cure, however, is clearly indicated in its removal.

But in order to avoid the reprehensible mistake of too absolute a generalisation, we must make the apparently self-evident restriction that, apart from rough lesions and collisions with foreign bodies, an organ may also be weakened and functionally deranged through under-nutrition. This is likewise a tangible fact. Under-nutrition can, in some cases, play a very important part in the economy of the body, but its nature is comparatively so simple and easily remediable, that it becomes insignificant in the face of the struggle against the foreign bodies.

For the control of the entire vital process, in its normal and abnormal condition alike, the blood furnishes the strongest support. The blood contains the constituents requisite for the composition and maintenance of all organs; the blood of the mother builds up the embryo and infant. Blood is liquefied life; it is not only the immediate vehicle of metabolism, but moreover yields all the building material for the body and at the same time removes and eliminates all refuse and waste matter. Thus all speculations as to the nature of disease and a rational therapy—in our sense—must of necessity commence on the blood which affords us a clue to the comprehension of the whole vital process.

We now propose to investigate in how far the latest researches have succeeded in revealing the nature of disease. *Dr. Paczkowski's*[1] exposition on the subject is eminently lucid and convincing, and we cannot do better than quote his words:—

"The noteworthy fact that of a large number of people under similar circumstances and conditions, only a few are taken ill, and that of several sufferers from a like disease some recover and others die; that of many people some show a rare youthfulness while others appear prematurely aged; and again that many people justly complain of feeling ill but are invariably pronounced to be perfectly sound and healthy, except perhaps 'a little nervous': this remarkable fact induced me to carefully inquire into the causation of these vacillating conditions. The more I sought after the cause of these indefinable ailments, the more the conviction was brought home to me that man has to blame himself in the first instance for his temporary misery. Disease will ever be close at hand, ready to spring upon us, for there are many things which can bring a discord into the harmony of our organism, but it lies in every one's power to weaken the influences of his surroundings by reinforcing and steeling his body against them. Every destructive power must have an opportunity and a point of vantage for its attack.

---

[1] These quotations are translated from the German, and taken from Dr. Paczkowski's treatises, "Die Selbstvergiftung des Körpers (Autointoxikation) als Grundlage zu Erkrankungen," and "Reinigung und Auffrischung des Blutes durch Pflanzen und Kraüter."—F. W. V.

" Man can protect himself against these hostile elements by giving them no chance of developing their activity, and showing them no weak points where to attack. The point of view that the so-called bacilli are the sole cause of many diseases, is long since overcome. The bacilli, like all animated matter, require a certain fostering soil which answers to their requirements of life, and they can only thrive where they find suitable sustenance.

" Man is the product of his metabolism. He will be akin in quality to the material which composes his body. If infectious diseases can force an entrance only into an organism which provides a fertile soil for them to live upon, how much more must this be the case with chronic diseases? These latter are, in the truest sense of the word, only the expressions of our conditions of living.

" What is the good of all the treatments, baths and health-resorts, if they do not attack the evil at the roots? What is the use of arguing whether this be the correct treatment or that cure the radical one? Is it not like the jobbing-tailor's work: merely patching holes?

"The term auto-intoxication (or self-poisoning) must be expanded in some respects, as we cannot only make actual poisons responsible for diseases and dispositions, but also all those processes which do not run smoothly, but impede each other and cause disorder. The author disclaims any desire to pose as a discoverer of new truths, he only hopes that he has succeeded in pointing out a new direction for the researches of abler men than himself. If we cannot boast of practical issues from our inquiries into the *nature* of disease, perhaps more signal results may obtain from an investigation of the *conditions* of disease!

"That regulating force which is ever active and never rests, also provides for a regular flow of the activities of the organs. One must help the other: a wheel within wheels. This law, however, can only remain in force as long as the capabilities are in proportion to the demands. If these capabilities be impaired, or even partially lost, then derangements are certain to accrue. But even then Nature (?) has made wonderful provisions: as soon as one organ has become weakened or diseased and cannot perform the task allotted to it, another one will act for it until the former has resuscitated through rest. On this fundamental law, on this reciprocal action of the organs our entire so-called "natural method of cure" relies, and in a larger sense also a regular and normal play of the vital functions in our organism: *i.e.*, *health.*

"The body in time will decay and become decrepit;

it can only remain alive if it be continually renovated. A stove will only give out warmth as long as it is well fed with coal. Our body resembles a stove very much, as therein also burns a flame which spreads warmth (the flame of life). The fuel in this case is the *food* which is ingested; without it the flame will die, and with it warmth and our life.

"In further pursuance of this simile, we all know that even the best coal is never entirely consumed, but that there is always a larger or smaller amount (according to quality) of remains. Now, unless these remains are regularly and carefully removed, they will in time accumulate to such an extent that the fire 'won't draw' and consequently 'won't burn.' If, in addition to this, the stove is overloaded with coal more than it can consume, it cannot possibly burn up (or utilise) the whole bulk, it only burns up a portion of the fuel, generating simultaneously noxious and poisonous by-products which burst the stove and endanger the surroundings. Our body resembles this primitive stove very closely: it also receives fuel—food—for the generation of heat. Nor is the combustion a complete one in this case; even the best and most expensive food will leave remnants which must be expelled. In the case of the stove this is done by the ash-box; in our human body it is effected by the excretory organs whose task it is to expel all waste matter, failing which there will soon accumulate a quantity of residue sure to jeopardise the health of the body, like the powerful vapours did the stove. The simile still holds good as regards over-loading the stove, the parallel to which is over-feeding the body. It may sound strange, but it is none the less true, that man is a poisonous being towards himself as well as towards his surroundings. He consumes clean food upon which the working power of the body draws for subsistence, and reparatory material for the entire organism. These two are the only legitimate purposes of food-ingestion. If an excess of food, more than can be worked up by the body, be forced into it, discomfort and functional derangements will naturally result, because the food, from reception and assimilation to excretion, goes through various stages in which it acts as a poison. Our foods are very complexly compounded combinations which are dissolved into simpler ones through the process of digestion. Every food-stuff has a sort of poisonousness at a certain stage of assimilation. This poisonousness, however, is disregarded by the system as long as it remains counterbalanced, *i.e.*, as long as the ingestion of food is congruent with the actual requirements of the system, and as long as reception and excretion are exactly balanced. The organs of reception (stomach, bowels, lungs) must absorb no more food than is actually and absolutely required. If this rule be broken, the surplus is subject to different laws of change and becomes a poison, a menace to the whole organism. On the other hand, the excretory organs (kidneys, bowels, skin, lungs) must remove comparatively as much as is ingested. The remnants also of actually digested and utilised food are a dangerous poison for the body which must be expelled from time to time. Delay and procrastination in this respect is fraught with danger.

"The minute precision of all these functions constitutes the above-mentioned balance, which means health; or in other words: eat no more than is naturally required and utilised by the body, and see to it that the excretory organs remove all waste matter. Any deviation from, or any transgression of, this law will impede the vital functions, and a condition results which we call disease.

"According to the above *exposé* it becomes clear that there are really only two conditions: we might say only 'one disease' and only 'one health.' Still, the branches which spring from a tree are numerous, and numerous, too, the streets which lead out of a thoroughfare; but they all have a mutual origin or centre. The large number of diseases which we are able to specify is still out of proportion to the vast number of possibilities of functional disturbances which may take place in our organisms. But never is a disease an independent entity, and the greatest error which has ever been committed and which now prevails generally, is the assumption that every disease is the outcome of a local disorder.

"If there is already a close and intimate inter-dependence between the healthy organs, how much more must this be the case during illness, when one organ must necessarily rely upon another for support?

"Our organism is an indivisible whole, and all those factors which tend to interfere with this 'unity' will upset its balance and engender disease. If the maintenance of health be based upon well-defined laws, disease doubtlessly is the penalty incurred for breaking these laws. The origin of the pathological conditions is also to be found in the origin of the vital conditions; the same elements which keep our body alive, may under certain circumstances also endanger our life, and thus it will become evident that we can reduce the origin of a pathological state, with its possible subsequent developments into well-defined forms of disease, to the following facts:—

"1. Food—other than absolutely necessary for the body—acts on the system as a poison in consequence of waste and decomposition.

"2. The remnants of the metabolic process, if not expelled in time, due perhaps to weakness of the excretory organs, likewise become poisons.

"In both cases the remnants are changed into poisons which have an irritating and paralysing effect upon the whole system. Thus auto-intoxication (or self-poisoning) is no more than a poisoning of the organism by products of its own metabolism which accumulate to an excessive quantity, their formation being encouraged partly on account of a surplus of material having been furnished the body, and partly on account of an inability of the weakened excretory organs to fulfil their task thoroughly. There are many diseases, more than a cursory glance will reveal; but all these divers diseases have one original causation in common, viz., a derangement of the excretory organs.

"As long as the latter functionate properly, disease is an impossibility. In these days we frequently speak of bacilli and 'colds,' but we are oblivious of the fact that they merely denote opportunities, *not* causes. Long before the disease broke out, something was wrong. One of the organs had got out of working order, and now but a slight opportune circumstance, such as a cold, a shock, physical or mental strain, would suffice to immediately call forth a disease.

"The contention has been advanced that all diseases have their origin in impure blood and bad circulation, which is, generally speaking, true, but I wish to amend that impure blood is in itself a disease which was originated as above delineated.

"The blood can only become poor or bad if it contain elements which are not meant to be there. However, as these elements are formed in our body every day, aye every minute, we may confidently infer that our body—*a priori*—possesses organs whose sole duty it is to remove the former. These special organs are the excretory organs already referred to. As soon as they become fatigued or diseased they cannot eliminate all poisonous substances, but a portion remains in the system, which latter may thus become seriously deranged. This applies with equal force to the lungs and kidneys, as well as to the skin and bowels.

"Should the lungs fail to work satisfactorily, too much carbonic acid remains in the blood ; if the kidneys lose their energy, urea and uric acid cannot be expelled properly ; be the skin neglected, poisons proper—not unlike septic or snake poisons—vitiate and poison the blood ; and sluggish bowels retain the remnants of food too long, causing putrefaction. It becomes a matter of course that under such circumstances the blood grows overcharged with morbid matter, and that a system thus contaminated will yield itself readily to the invasion of diseases. We are liable to these impurities already as children, and the whole host of infantile diseases—as, for instance, diphtheria, measles, scarlet fever, whooping cough, &c.—are merely the outcome (or expression) of these accumulations.

"Still, the much-discussed bacillus is there, but it can only exert its powers in an impure soil. It is a well-known fact that millions of these bacilli float around us in the air; we inhale thousands of them in the loveliest garden and in the cleanest room. But how is it that, though we are all exposed to these common dangers, only a few of us succumb to them? Why, of all the children who live in the same air, does only one get an attack of diphtheria? And further, why does only one or only a limited few of all the people who walk home during a chilly and damp night, contract pneumonia? They all were exposed to the same atmospheric conditions and breathed the same air.

"Does not this show that only diseased individuals can become diseased? It may sound queer and paradoxical, but it is the fact all the same. Disease can only thrive in a diseased (or impure) body!

"For example, take a man whose system is excessively overcharged with impurities. Say, he catches a cold. What will very likely result? An attack of pneumonia or inflammation of the kidneys or some other grave disease! A person, however, with cleaner blood will probably escape with a mere cold in the head. But a thoroughly healthy individual will not catch a cold at all!

"Catching a cold is a process of sudden refrigeration, Every one will have observed that our skin grows red in warm, and pale in cold, weather. This phenomenon is founded on the contractility and expansibility of the skin. If these faculties remain unimpaired, the skin will be able to contract as quickly as it will expand; but if the skin has been neglected it can only change from the one state into the other with difficulty. If, in that case, a cold draught strike a part of the body, or the whole body become suddenly refrigerated, the skin will contract spasmodically without being able to expand again equally quickly. Futhermore, however, we know that the skin should constantly transpire to prevent the organism from becoming poisoned. But a contracting skin cannot excrete, and consequently all the morbid matter with its poisonous products assails the internal organs: lungs, kidneys, and bowels. These, not prepared for the assault, become inflamed and lead to the various diseases, really severe forms of a cold, known as pneumonia, acute catarrh, inflammation of the kidneys and bowels.

"I have endeavoured to show by the above exposition that the blood is the most important and vital element in our body, and that health depends on its quality, which, to wit, must be alkaline, *i.e.*, sweet. As soon as it becomes acid it jeopardises health and even life, as, for instance, in gout and diabetes. Acid blood is a veritable poison within our veins, causing disease and breaking down the resisting power of the body. The alkalinity of the blood (*i.e.*, richness in potash and sodium) attains to its greatest significance in all febrile diseases. The fact that the alkaline salts disappear in the blood and urine during these diseases leads us to believe that these salts are used up in the body in combating diseases. Only the alkaline blood is able to destroy the morbid matter in such diseases as typhus, pneumonia, scarlet fever, and erysipelas. It has, indeed, been proven that the alkaline blood kills the most powerful bacilli as effectually as any disinfectant, carbolic acid, or sublimate. We can, therefore, dispense with the latter; our blood—provided, as already emphasised, it be correctly composed—being the best and most reliable protection against injurious invasions. *Not so much depends on the action of the heart in febrile diseases as on a rich supply of alkaline blood to the whole system.*

"It is useless to administer large quantities of wine, beer, brandy or coffee to the feverish patient; these expedients are prone to make the patient worse in the long run, besides having a paralysing effect on the heart. It is difficult to understand why so many physicians still insist upon alcohol as a cordial. Many a patient in all probability would have had a more rapid recovery had the doctor prescribed alkaline foods instead of alcohol. No matter what may have caused the disease, its cure, in the first instance, must be sought in a copious supply of alkaline blood. Fruits, fruit-juices (lemonades) will afford the patient quicker and more salutiferous relief than the most expensive wines. A patient will never succumb through weakness of the heart if a sufficiency of alkalies be provided, because normal heart-action likewise relies on the alkalinity of the blood. As long as the muscles of the heart are fed with alkaline blood they will remain active and indefatigable.

"In every human[1] body, and more so when it is diseased, a certain amount of acid is constantly being formed, which can only be neutralised and expelled by the aid of alkalies. During a fever the metabolic change is very considerably accelerated, and great demands are made upon the alkalinity of the blood which requires constant reinforcement from suitable food.

"There are still many parents who swear by the beneficialness of broths and beef-teas, hoping therewith to strengthen their sick child. I must, however, disillusionise them on that point. It is a well-known fact that potassic salts are "heart poisons," *i.e.*, they hinder the heart in the proper performance of its functions. Beef-tea, however, is very rich in these salts, hence also the spicy flavour. If parents wish to give their children something tasty or appetising, let them by all means give beef-tea; but they are vastly mistaken if they think they are giving the invalid something for building up his strength. A dish rich in nutritive salts, say a plate of fruit, will be of much better service to the child.

"As regards all those artificial patent foods claiming to possess any and every virtue their clever "advertisement concocters" may be able to imagine, I prefer to pass that subject over in silence . . . mayhap we shall live to see the day when we shall be obliged to do our marketing at the drug stores, and chemical factories will become our general caterers and provision merchants!

---

[1] According to Dr. Chalmers Watson, F.R.C.P., uric acid, for instance, has also been found in the blood of birds; a fowl, it is stated has been known to have gout!—F. W. V.

"Chronic diseases are curable only if the blood have the correct alkalinity. Thus catarrhs affecting the respiratory organs, stomach, and bowels, also chronic catarrhs of the urinary organs and cystic ducts, are favourably counteracted since the phlegm and mucus become looser and more soluble. Biliary and nephritic calculi, about which numerous, more or less contradictory, theories have been propounded, can only be dissolved in, and expelled by, the alkaline blood.

"Diabetes, gout, and obesity are—if not directly—indirectly affected by the alkalinity of the blood. It is particularly in diseases such as these that the alkalinity of the blood is so all-important a factor. Apart from their originating cause, we know that these three diseases depend upon lowered metabolic operation. It is the sugar in the case of diabetes, the uric acid in gout, and the fat in obesity, which are incompletely oxidised. As, however, the alkalinity of the blood is conducive to a higher process of oxidation, its importance in these three diseases will at once become obvious. The injurious and poisonous by-products of decomposition are burnt up over and over again, and are thus prevented from accumulating and concreting.

"Lacking the necessary alkalinity, the blood will also be deficient in strength, vigour, and freshness, and our body will suffer similarly, presenting a weak and prematurely aged aspect. All the chief symptoms of real old age, *i.e.*, pale wrinkled skin, thinness, dull eyes, &c., appear also in cases of premature age, consequent upon a protracted deficiency in the alkalinity of the blood.

"A young heart and a cheerful mind alone do not constitute 'youth'—to achieve that they must be backed up by a goodly supply of fresh blood."

Dr. Paczkowski's demonstrations are certainly most noteworthy and show philosophical reasoning, and, although they may lack thorough scientific foundation and evidence, they are nevertheless very clear, and possess the great advantage of being borne out by facts and experience. We have given Dr. Paczkowski's quotation precedence, because his theories afford us a most fitting base from which to pursue our further inquiries into the modern conceptions of the nature of disease.

Dr. Lahmann's conception as regards this weighty problem is much more precise. He deals with this interesting subject in his well-known treatise entitled, "Die diätetische Blutentmischung (Dysämie) als Grundursache aller Krankheiten,"[1] and produces convincing figures in support of his arguments. Dr. Lahmann may well be proud of his theories, but what counts for more and speaks more eloquently than words is the fact that the most signal practical results have substantiated them and proved them to be correct. We beg of the reader to give his earnest and most careful attention to the following

---

[1] "Dietetic dysæmia considered as the causation of all diseases."—Transl. F. W. V.

(Dr. Lahmann's) theories, for, as we have said before, only a clear and accurate insight into the inwardness and nature of disease will enable us to struggle successfully against it.

Dr. Lahmann writes:—

"The blood is the food-base for all tissues of the body. But is its composition always the same and always such that it can be regarded as sufficient nutriment for *all* tissues? No! We know that the constituent parts diverge very considerably, both as regards quality and quantity; Peiper, Copemann, Schmaltz, and others have proved that the specific weight of the blood fluctuates. That the physical and chemical relations cannot but deviate manifests itself in the decreased coagulability of the blood in hæmophilia; that the chemical composition—apart from its hæmoglobin properties—may vary very considerably will be proven by future researches of physiological chemistry. At present it is anticipatorily inferred from the scanty existing material.

"The question now arises: Can the composition of the blood deviate from its normal mixture without having some effect on the health of the body? Again we must answer with an emphatic 'No!' We are aware of the possible grave consequences of anæmia and we shall now learn that dysæmia (*i.e.*, abnormal blood-mixture) is the chief root of all disposition to disease. Sanguification necessarily depends on the quality and quantity of food absorbed by the system. Physiology of nutrition has recorded that the body is dependent for nourishment and maintenance upon a proper amount of albumen and carbo-hydrates, *i.e.*, sugar, fat and mineral matter. Scientific chemists have been assiduously engaged upon studying the albuminous bodies, but have as yet failed to elucidate the exact amount the human organism requires for existence; they have only succeeded in ascertaining the amount which is 'worked up' or assimilated, or to put it more correctly still, the amount that can be expelled by the urine and excrements. About fifteen years ago 130 grammes[1] of albumen were considered necessary, five years later this amount was reduced to 80 grs. and since then even to 48 grs. (according to Hirschfeld) per diem, because people were observed to thrive well on that quantity.

"Of the carbo-hydrates we know that they stand in the same relationship to the body as the fuel to the machine, *i.e.*, representing the working material; and as regards the fatty substances that they may be dispensed with, if it is absolutely necessary to do so.

"The mineral substances are generally mentioned last on the list and, therefore, have mostly been considered of less importance even than fat. It is, however, surmised that so-called anæmia is due to a deficiency in iron in the blood, rickets to want of lime, &c.; should we not, in the face of these facts, bestow a little of our attention, be it even at the expense of the albuminous bodies, on the study of the minerals?

---

[1] On account of its greater lucidity and simplicity I propose retaining the gramme-calculation in the following theoretical explanation: 1 gramme (gr.) is equal to 15.43248 grains troy.—F. W. V.

"The albumen theory is upon its last legs. A sufferer from kidney disease can excrete an enormous quantity of albumen, and we are unable to trace any marked influence of this loss of albumen on the body. A patient may fall away to a skeleton but, providing the latter remains solid and firm, he will be able, in an incredibly short time, to pick up again and restitute a sufficiency of albumen to the organism, even if drawn from theoretically unsuitable foods, *i.e.*, poor in albuminous matter. But woe betide if the solidity of the skeleton have suffered through want of calcic salts—a cripple for life will rise from the couch.

"Should it, therefore, not be possible that the mineral elements might be of greater importance than the albuminous matter?

"To make my meaning clearer, I will choose an example. The fallacies of the albumen theory do not stop short at the physiology of *human* nutrition, but extend as far as to the theories of *vegetable* (or plant) nutrition. The pass-word on the one hand is—albumen and animal food; and on the other—nitrogenised manure! In addition to which certain phosphates and a few chemical fertilisers containing potash, are recommended. The sole reason for the latter is that phosphoric acid and potassium have been found to represent the preponderating mineral elements in all plants—hence they must also be the most important.

"It now happens, however, that vegetable diseases and parasites in great variety and number invade the chemically incorrectly organised plants which are consequently without resisting force and whose dyscrasia renders them highly amenable to disease. Epidemics rage among wrongly nourished plants as well as among wrongly nourished human beings. Vine-disease, rot, &c., attack the former, diphtheria and tuberculosis the latter.

"What are the plants in want of? The answer is: minerals, which the poor soil, drained and worn out of heart through generations, is incapable of supplying. The watchword for the agriculturist, therefore, must be: plough deeper and use mineralised manure, *i.e.*, ~~supplement the~~ deficiencies of the soil by animal ~~and liquid manure *in natura* or~~ by ~~compost.~~

"After this little digression we will turn our attention again to man.

"We know that the food for a moderately active adult (according to Moleschott) should contain :—

Albumen	130 grs.
Fat	84 "
Carbo-hydrates	404 "
Inorganic combinations (salts)	32 "

"Now, assuming these figures to be absolutely correct, we cannot but protest against the indefiniteness of the last item, viz., 'of inorganic combinations or salts 32 grs.'; we demand, moreover, the detailed amounts of so and so many grammes of potash, sodium, lime, iron, &c., &c. For if we speak of the inorganic elements collectively, we might with an equal right describe albumen, fat, and carbo-hydrates, simply as organic matter, and substitute for the first three items in the above table the summary statement: of organic combinations 618 grs. But, whereas a man who consumes carbo-hydrates only, or albumen only, or fat only, will perish, he also will die or suffer in health who preferably or exclusively absorbs potassic salts, but avoids sodaic salts. Nor can I admit the convenient confutation that the mixture of the several mineral constituents (or more correctly nutritive salts) is identical or at least very similar in all food-stuffs. What enormous differences obtain here will be shown by and by.

"The simple collective term 'inorganic matter' or 'salts,' which covers the defects of our knowledge very drastically, has led to the mistaken notion on the part of the general public that the common condiment, known as 'salt,' is referred to when mention is made of salts. So it has happened that the indigestible mineral chloride of sodium (NaCl) which is the more correct description of what is known to the public as 'table-salt' enjoys the reputation of an excellent food; even the opinion prevails among certain sections of the people that this 'salt' helps to 'form bones,' and it is, therefore, frequently added to the children's milk in considerable doses. The majority of the medical and lay public does not trouble about the metabolism of the nutritive salts at all, which, after all, cannot surprise us so very much, considering that a good many physiologists even are at a loss to know what to do with these salts.

Most medical text-books, moreover, are particularly niggardly in dealing with this subject, and we read on all ends: we know nothing definite.

"The albuminous, adipose (or fatty), and sugar-forming elements and vegetable acids, found alike in the animal (or human) and vegetable organisms, consist as much of organic elements (carbon, hydrogen, nitrogen) as the unknown and partly known combinations which are principally composed of different inorganic elements. The fact that the latter are often actually or apparently found in combinations which exist in the mineral world or can be evolved in a chemical laboratory, does not yet justify us in passing them off as inorganic combinations.

"While the metabolic change of the so-called organic elements varies very considerably—the carbo-hydrates, for instance, are relatively more quickly combustible than the albuminous bodies which have a longevity in the organism of very varied duration—the period of existence also of the organised mineral elements in the animal organism fluctuates according to the nature and purpose of the respective minerals very considerably. The life of the molecule terminates when its vitality (leased from the vegetable organism) is used up, just the same as the vitality of the decrepit, senile organism proper, is exhausted. We consequently have a right to affirm a *periodic* vitality of the so-called inorganic ingredients of the animal organism, hence also follows their metabolism. We, furthermore, argue in favour of the contention that a fully grown organism requires, on account of this metabolism, on the whole the same amount—or, more correctly, the proportionate percentage—of inorganic nutritive salts as the growing organism. We no more know how much of these mineral elements is required by our organism than we do the *exact* quantity of albumen, &c. Yet a criterion for a standard (or normal) food-mixture is to be found in the human, or cow's, milk on which a human organism can be built up and fairly well maintained. Inasmuch as we shall never be able to give exact figures, it would be a mistake to say: the human body requires so and so many ounces of that food element and so and so many of the other. We can only hope to solve the problem by substituting for the 'so and so many ounces,' '*so and so much per cent.*' Say, for instance, one child takes 1 litre[1] of milk during the day and another child 1½ litres; then the latter takes more in absolute quantity, and will, according to its disposition, perhaps build up a larger body; but, relatively speaking, No. 1 absorbs as much nutritive elements as No. 2, and is in consequence equally normally nourished. However, if you were to force No. 1 to take quantitatively as much as No. 2, No. 1 would surely suffer in health.

"It so happens that numerous children as well as adults are overfed to the verge of illness for the sake of the absolute figures of the text-books, whereas the empirical maxim that *man does not live on what he eats, but on*

---

[1] 1 litre (a French measure capacity) equal to 1¾ pints.

what he digests is entirely disregarded and treated with contumely.

"At first glance it may indeed seem peculiar that we should compare the mostly solid foods of the adult with the standard food-mixture, milk; this, however, can be done pretty easily if we take the per-cent. values.

"Let us take, for instance, some analyses in percentages:—

	Human milk.	Cow's milk.
Water	87·02	87·42
Albumen	2·36	3·41
Fat	3·94	3·65
Milk sugar	6·23	4·81
Nutritive salts	0·45	0·71

and then compare what Moleschott and Vierordt have ascertained, by careful separate observations, to be the alimentary requirements of the moderately active adult within twenty-four hours, viz.:—

Water	2,818 grs.
Albumen	130 „
Fat	84 „
Carbo-hydrates	404 „
Salts	32 „

These figures are not of much use, but let us divide every one by 34 and see the result:—

Water	83·0 grs.
Albumen	3·8 „
Fat	2·5 „
Carbo-hydrates	11·9 „
Salts	0·9 „

As the sum total of these figures amounts to 102, we may round it off to 100, and say: the per-cent. combination of the nutritive mixture of the adult is—

Water	81·0	per cent.
Albumen	3·8	„
Fat	2·5	„
Carbo-hydrates	11·9	„
Nutritive salts and common salt	0·9	„

"These figures bear a striking resemblance to those of the milk; moreover, as fat and carbo-hydrates may, in accordance with experience, supplant each other within these limits, the proportion in that case being one part of fat to four parts of carbo-hydrates. Hence we may say that the solid and fluid food-stuffs ingested daily by an individual contain the same constituent percentages as milk, taking also into consideration that, should an excess of solid foods have been taken, the resulting thirst will compel the individual to drink a certain quantity of water, which will bring the water standard of the standard food-mixture up to its normal average of about 85 per cent. How much a person eats of this standard food-mixture is absolutely a matter of idiosyncrasy and does not concern us now in the least, because everything, as shown in the case of the two children referred to above, depends on the per-cent. combination of the food constituents. There are individuals who use up 3,436 grs. (2,818 grs. of water + 618 grs. of solid matter) of a standard food-mixture in twenty-four hours; I personally, for instance, do very well on 2,500 grs. and am active and healthy.

"We therefore deprecate in our physiology of nutrition those absolute figures which are only correct in individual cases, and advocate and propose the adoption of relative *per-cent.* calculations.

"Having gained some satisfactory knowledge of the organic elements and also of the sum total of the so-called inorganic elements, we now propose to investigate the individual items which make up this 'sum total,' *i.e.*, to endeavour to learn what proportionateness there should be between the different inorganic elements themselves and the organic elements in a standard food-mixture. The analysis of milk will again serve us for a guidance, choosing cow's milk, not only for the sake of convenience and as a makeshift, but also because I do not consider the analyses of human milk normal nor reliable on account of the faulty and irrational alimentation of the human race in general. Cow's milk contains on an average 0·7 per cent. nutritive salts (ash), which are respectively composed of:—

Potassic Monoxide (K_2O)	24·67	per cent.
Soda (Na_2O)	9·70	„
Lime (CaO)	22·05	„
Magnesia (MgO)	3·05	„
Ferric Oxide (Fe_2O_3)	0·53	„
Phosphoric Anhydride (P_2O_5)	28·45	„
Sulphuric Anhydride (SO_3)	0·30	„
Silica (SiO_2)	0·04	„
Chlorine (Cl)	14·28	„

A standard food-mixture should consequently show an approximately equal percentage of nutritive salts and an approximately equal combination per cent. of the latter.

"Let us now test, by the aid of these values, the food-mixtures ordinarily used by man as to their normal or intrinsic worth. The chief food-mixture of the civilised races of European origin is based on the triad: meat, corn, and potatoes, to which we will also add the legumina. The consumption of green vegetables is mostly restricted to the summer and is rendered of less value because the vegetables are, as a rule, artificially deprived of the easily soluble nutritive salts through a wrong process of cooking (boiled out in too much water). Fruit is considered more or less a luxury, and is generally eaten only 'in season' and in very small quantities, and, on the other hand, is frequently avoided as injurious, which occasionally also applies to the vegetables.

"As the standard of water varies very considerably in the different food-stuffs, a comparison will only become possible if we compare the dry substance as to its contents of salts, and primarily only the *absolute* values, after which the relative ones will become more intelligible. As, furthermore, possible miscalculations are rendered less frequent when reckoning with larger figures, we will adopt E. Wolff's method, indicated in his 'Ash-analyses of Agricultural Products,' giving 1,000 grs. of dry substance as the weight basis for comparing the different values of the ashes.

"It is a significant fact that we are obliged to get our data from ash-analyses of *agricultural* products.

"The contents in grammes of 1,000 grs. of dry substance are shown in the table on page 32.

	Ash total.	Potassic Monoxide (K_2O).	Soda (Na_2O).	Lime (CaO).	Magnesia (MgO).	Ferric Oxide (Fe_2O_3).	Phosphoric Anhydride (P_2O_5).	Sulphuric Anhydride (SO_3).	Silica (SiO_2).	Chlorine (Cl).
Cow's milk	48·8	12·04	4·73	10·66	1·49	0·26	13·88	0·15	0·02	6·97
Meat	40·6	16·76	1·47	1·15	1·30	0·28	17·27	0·63	0·45	1·56
Wheaten flour ...	4·7	1·69	0·04	0·13	0·39	—	2·45	—	—	—
Rye-flour	19·7	7·57	0·34	0·20	1·57	0·50	9·51	—	—	—
Potato	37·7	22·76	0·99	0·97	1·77	0·45	6·53	2·45	0·80	1·17
Pea	27·3	11·41	0·26	1·36	2·17	0·16	9·95	0·95	0·24	0·42
Carrot	54·7	20·20	11·58	6·20	2·40	0·55	7·00	3·53	1·30	2·51
Spinach	164·8	27·29	58·16	19·58	10·51	5·52	16·89	11·32	7·45	10·22
Lettuce	180·3	67·85	13·60	26·47	11·76	9·39	16·57	6·78	14·68	13·79
Apple	14·4	5·41	3·76	0·59	1·26	0·20	1·96	0·88	0·62	—
Strawberry.........	34·0	7·16	9·68	4·48	—	2·00	4·70	1·07	4·10	0·48

"Dietetic physiology of the present time is perfectly satisfied if a person consumes 130 grms. of albumen, 84 grms. of fat, and 404 grms. of carbo-hydrates. If, for the sake of facilitating our calculations, we compose a food-mixture which answers to these requirements, of equal parts of the dry substance of meat, bread, potatoes, and peas, we need only add up[1] the respective figures and divide them by 4 in order to find out the proportion of nutritive salts. We then get in about 1,000 grms. of dry substance a food-mixture similar to this:—

Ash total	31·3	grms.
Potassic Monoxide (K_2O)	14·6	„
Soda (Na_2O)	0·76	„
Lime (CaO)	0·92	„
Magnesia (MgO)	0·70	„
Ferric Oxide (Fe_2O_3)	0·35	„
Phosphoric Anhydride (P_2O_5)	10·42	„
Sulphuric Anhydride (SO_3)	1·00	„
Silica (SiO_2)	0·37	„
Chlorine (Cl)	0·8	„

"A comparison between these figures and those of the milk, as a standard food-mixture, teaches us the following:—

"1. *A food-mixture may correspond to a standard food-mixture absolutely in its organic ingredients, but it need not necessarily do so as regards its inorganic ingredients.*

"2. *The average food-mixture of the European peoples not only shows an absolute deficiency in nutritive salts, but also a deviation from a standard food-mixture in the composition of the nutritive salts.*

---

[1] This, moreover, tallies almost exactly if we take about 140 grms. of dry substance of each.

"The foregoing table (p. 32) clearly shows that by introducing green vegetables, roots, lettuce, and fruits into the bill of fare this deficit can easily be adjusted; but it is a simple fact that most people do not, or at least only periodically, make up this deficiency, for which reason they are not normally nourished, *i.e.*, their bodily composition is chemically incorrect, because the blood, not built up on normal or 'standard' food, is chemically deficient and abnormally mixed—to wit, dysæmic.

"Dysæmia (decomposition or degeneration of the blood) can also be brought on by other influences; for instance, by too copious a supply of liquids (the mixture of the solid food-stuffs being quite normal), by an insufficient supply of oxygen during chronic ærophobia, &c.; but these forms of dietetic dysæmia are only of secondary consideration when compared with the above-discussed species. All the other terms, such as dyscrasia, diatheses, &c., convey nothing tangible to our minds. These states are only consequences of a dysæmic condition. In the last instance wrong dietetics—or, more precisely, a wrong diet—might be held responsible for causing dysæmia; but these terms are too vague and useless as catchwords. The hygienists, both of the old and new schools, speak of 'dietetic errors,' but they differ from each other in their conception of the matter; the vegetarian and the abstainer, too, speak of wrong dietetics, and quite a number of these good people contract a like dysæmia to their kind brethren whom they profess to instruct and enlighten!

"Only the term 'dysæmia,' regarded as the outcome of an abnormal and disproportionate mixture of the blood and most frequently also of a deficiency of the blood and tissues in those elements which are unconditionally required for maintaining health, is competent to decide whether a dietetic habit should be regarded as a disease-causator or not. A relative injuriousness which exerts an occasional or accidental influence is, although it may sound paradoxical, *none* such, in our sense, so long as it does not cause a dysæmia! At a pinch, to use an exaggerated illustration, an arsenic-eater, provided he have otherwise nourished himself correctly in our sense, as shown above, can enjoy better health and be less liable to diseases than an individual who thinks he feeds correctly on meat, potatoes, bread, coffee, and beer; or the would-be, but misguided, vegetarian, who regards whole-wheat bread, rice, lentils and peas, barley-water and water as the most rational diet; because these latter two individuals may, despite their precautionary measures, feed themselves into a dysæmic condition.

"Yet the objection might be raised that the mixture of the nutritive salts of the milk may not afford us an absolute criterion for the amount of mineral matter required by the whole organism.

"Supposing now that the mixture of nutritive salts of our body corresponded with that of the milk? Must not the food, which builds up our body and preserves its metabolic balance, be composed according to the same principles as the body? Obviously there can be no question about this, for nothing will originate from nothing, and if the body requires a certain quantity of this stuff and another for its existence, this quantity must be furnished by the food.

"In fact, the per-cent. composition of the ash of the whole organism (as yet we have only Bunge's analyses of rabbits and dogs to go by) is very much like that of the milk:—

	Rabbit.	Dog.	Dog's milk.	Cow's milk (Bunge).	Cow's milk (Wolff) Average of 9 analyses.
Potassic Monoxide	10·84	8·49	10·47	22·14	24·67
Soda	5·96	8·21	6·13	13·91	9·70
Lime	35·02	35·84	34·44	20·05	22·05
Magnesia	2·19	1·61	1·49	2·63	3·05
Ferric Oxide	0·22	0·34	0·14	0·04	0·53
Phosphoric Anhydride	41·94	39·82	37·49	24·75	28·45
Chlorine	4·94	7·34	12·36	21·27	14·28

We are, therefore, justified in drawing this conclusion: In order to build up and preserve blood, flesh, and bones—in short, material for the body, which possesses certain mineral constituents—a food-mixture analogous in nutritive salts is necessary, *i.e.*, a food-mixture which in nutritive salts corresponds quantitatively and qualitatively to the composition of the milk.

"In continuing our comparison (of p. 33) of the relative values of the nutritive salts contained in the current food-mixtures (meat, bread, potatoes, legumina) with the values of the nutritive salts in milk, our conception of the term 'dysæmia' will already become clearer.

"This current food-mixture compared with cow's milk is indeed

Poorer in—	Richer in—
Soda (6 times)	Potassic Monoxide
Lime (11 times)	Ferric Oxide
Phosphoric Anhydride	Sulphuric Anhydride
Chlorine	Silica

and the same relationship exists between the composition of the nutritive salts in food-mixtures which are considered satisfactory by modern physiological dogmatists."

These quotations will suffice to elucidate the principle underlying the conception of what Dr. Lahmann styles "dysæmia." Dysæmia, however, as shown by that learned gentleman, may also, apart from want or surplus of nutritive salts, be the resultant of other agencies; and here Dr. Lahmann draws particular attention to the excessive ingestion of common salt and a dilution of the blood through too copious a supply of fluids. To these factors we shall have to refer again, more especially later on, but for the present we will pass them over. Dr. Lahmann formulates his conception of dysæmia thus: "Dietetic dysæmia, in a narrower sense, is constituted by the three factors: wrong nutrition or wrong cooking, abuse of common salt, and excessive consumption of water. The multiplicity of the effects is a very great one, comprising, indeed, the entire pathology, and depends on whether the one or the other factor or simultaneously two or even three factors prevail exclusively or preferably in most diversified intensities, or whether it is a case of individual or familiar indiscretions and hereditary taints, or dietetic errors. Equally difficult is it, in such a vast sum of combinations, to find a connection between cause and effect in every given case or individual complaint; but if we reflect a little in the way suggested our conjectures will grow more or less into certainties, and we shall at least hold a somewhat different view as regards the cause and prevention of disease, as heretofore, which will amply repay me for my work."

A guide for the choice of the various comestibles is indicated by Dr. Lahmann in the Table on opposite page, offering besides the constituents of albumen, fat, and carbohydrates, a fairly exhaustive and valuable complement by giving the various quantities of nutritive salts contained in the respective food-stuffs.

Dr. Lahmann's delineations and principles are of the utmost importance, as their application has been most conspicuously successful. Every hygiene and every dietetic cure which ignores the fundamental importance of the nutritive salts, is *a priori* doomed to failure.

Some important revelations as regards the nature of disease have been made by Dr. Alexander Haig, who deals with the subject at great length in his well-known work, "Uric Acid as a Factor in the Causation of Disease." This treatise, however, is very voluminous and too technical for the average lay reader; we, therefore, prefer quoting from Dr. Haig's smaller work, entitled, "Uric Acid, an Epitome of the Subject," which was published (1904) after the larger

DAILY RATIONS.[1]	Albumen.	Fat.	Carbo-hydrates.	Ash.	Potash.	Soda.	Lime.	Magnesia.	Ferric Oxide.	Phosphoric Acid.	Chlorine.
	grams.	grams.	grams.	grams.	grams.	grams.	grams.	grams.	grams.	grams.	grams.
200 grams Bread (rye and whole-wheaten)	12·20	0·85	98·	2·89	1·06	0·05	0·03	0·22	0·06	1·41	...
212 ,, Flesh, or 160 grams.											
Lentils { Flesh	39·20	26·30	...	2·10	0·80	0·21	0·05	0·07	0·01	0·90	0·10
Lentils { Lentils	41·20	3·20	86·	4·86	1·68	0·64	0·32	0·12	0·10	2·00	0·28
250 ,, Unskimmed Milk.........	8·30	9·0	12·	1·70	0·40	0·16	0·35	0·05	0·01	0·46	0·23
100 ,, Flour	11·50	1·00	72·	1·00	0·30	...	0·06	0.12	...	0·50	...
250 ,, Potatoes.....................	4·90	...	52·	2·00	1·20	0·04	0·04	0·09	0·02	0·38	0·05
200 ,, Spinach.....................	5·00	1·16	10·	4·18	0·70	1·45	0·50	0.25	0·13	0·42	0·25
40 ,, Cocoa or Chocolate......	2·00	7·00	35·	1·00	0·40	0·02	0·05	0.17	...	0·40	0·01
150 ,, Lettuces.....................	2·00	0·50	5·	1·55	0·66	0·13	0·26	0·10	0·09	0·15	0·13
100 ,, Gooseberries, Strawberries, or Bilberries.	1·56	...	12·	2·04	0·80	0·22	0·28	0·13	0·10	0·44	0·01
100 ,, Dried Figs	4·01	...	50·	2·86	0·80	0·80	0·51	0·25	0·04	0·04	0·08
50 ,, Curd Cheese..............	12·52	2·55	1·8	1·75	0·22	0·02	0·60	0·04	0·01	0·66	0·12
50 ,, Radishes	0·60	0·07	2·0	0·37	0·11	0·07	0·05	0·01	0·01	0·04	0·03
40 ,, Butter........................	...	33·00	...	...	...	...	...	...	...	...	...
Mixed diet (counting flesh in the second section)	103·79	81·43	349·8	23·44	7·45	3·17	2·78	1·50	0·48	5·80	1·01
Correct vegetarian diet (counting lentils in the second section)	105·79	58·33	435·8	26·20	8·33	3·60	3·05	1·55	0·57	6·90	1·15

---

[1] We would, however, strongly advise all readers leading an active and strenuous life to consume only the third part, or even half, of the allotted amounts of Bread, Flesh, Lentils, and Potatoes and Vegetables.

PERCENTAGE COMPOSITION OF

(Comp. J. Koenig.) FOODS. THE NUTRITIVE SALTS. (Comp. E. Wolff.)

	Water.	Albumen.	Fat.	Carbo-hydrates.	Nutritive Salts.	Potash.	Soda.	Lime.	Magnesia.	Ferric Monoxide.	Phosphoric Anhydride.	Sulphuric Anhydride.	Silica.	Chlorine.
A. *Cow's Milk* as standard	87·42	3·41	3·65	4·81	0·72	24·67	9·70	22·05	3·05	0.55	28·45	0·30	0·04	14·28
Human Milk food-mixtures	87·02	2·36	3·94	6·23	0·45	33·79	9·12	16·69	2·16	0·22	22·66	0·95	0·02	18·38
B. *Vegetables and Salads*—														
Savoy	87·09	3·31	0·71	6·02	1·64	27·50	10·16	21·38	3·59	1·73	14·75	8·20	4·78	7·91
White Cabbage	89·97	1·89	0·20	4·87	1·23	36·86	9·46	17·63	4·00	0·69	8·99	13·91	0·87	8·51
Spinach	88·47	2·49	0·58	4·44	2·09	16·56	35·23	11·88	6·38	3·35	10·25	6·87	4·52	6·20
Brussels Sprouts	90·89	2·48	0·34	4·55	0·83	44·36	5·89	5·58	3·66	1·02	20·22	18·01	3·76	3·44
Stinging Nettles Salad herbs	82·44	5·50	0·67	7·13	2·30	32·04	2·39	28·24	7·16	4·77	7·84	8·35	4·03	6·66
Dandelion	85·54	2·81	0·69	7·45	1·90	38·86	10·44	19·96	8·38	0·86	7·84	2·24	7·01	2·65
Asparagus	93·75	1·79	0·25	2·63	0·54	24·04	17·08	10·85	4·32	3·38	18·57	6·18	10·09	5·93
Cucumber	95·60	1·02	0·09	2·28	0·39	41·16	10·05	7·30	4·15	1·40	20·00	6·92	8·03	6·59
Lettuce (prickly)	93·41	2·09	0·41	2·73	0·79	46·01	9·43	6·05	2·17	—	8·52	3·89	20·23	4·75
„ (headed)	94·33	1·41	0·31	2·19	1·03	37·63	7·54	14·68	6·19	5·21	9·19	3·76	8·14	7·65
Roman Salad	92·50	1·26	0·54	3·55	0·98	25·30	35·30	11·86	4·33	1·26	10·90	3·87	2·99	4·19
Leek	87·62	2·83	0·29	6·53	1·24	30·72	14·15	10·37	2·92	7·61	16·69	7·35	7·36	3·11
Onion	85·99	1·68	0·10	10·82	0·71	34·03	2·48	22·87	4·65	2·27	17·35	5·68	8·50	2·41
Mushrooms	89·12	2·61	0·28	6·11	0·70	50·89	1·65	1·01	3·37	1·62	33·71	3·94	0·98	0·88
C. *Tuberous plants and roots*—														
Radishes	93·34	1·23	0·15	3·79	0·74	32·00	21·15	14·94	3·10	2·84	10·86	6·47	0·91	9·15
Horse-radish	86·92	1·92	0·11	7·43	1·07	21·98	3·75	8·78	3·53	1·16	41·12	7·71	8·17	4·90
Celery-root	84·09	1·48	0·39	11·80	0·84	43·19	—	13·11	5·82	1·41	12·83	5·58	3·85	15·87
Potatoes	75·48	1·95	0·15	20·72	0·95	60·06	2·96	2·64	4·93	1·10	16·86	6·52	2·04	3·46
Artichokes	79·59	1·98	0·13	15·66	1·17	47·74	10·16	3·28	2·93	3·73	14·00	4·91	10·03	3·87
Parsnips	89·90	3·52	0·14	11·34	1·28	46·93	5·65	11·33	3·68	0·61	14·51	9·62	1·06	6·59
Carrots	87·05	1·04	0·21	9·40	0·90	36·92	21·17	11·34	4·38	1·01	12·79	6·45	2·38	4·59
Turnips	85·89	4·87	0·21	8·18	1·17	35·31	6·54	10·97	6·84	3·03	21·90	8·85	2·48	4·95

D. *Cereals*—														
Winter Wheat	13·65	12·35	1·75	67·91	1·81	31·16	2·07	3·25	12·06	1·28	47·22	0·39	1·96	0·32
„ Rye	15·06	11·52	1·79	67·81	1·81	32·10	1·47	2·94	11·22	1·24	47·74	1·28	1·37	0·48
, Barley	13·77	11·14	2·16	64·93	2·69	16·33	4·14	0·74	12·53	1·72	32·82	2·98	28·74	...
Oats	12·37	10·41	5·23	57·78	3·02	17·90	1·66	3·60	7·13	1·18	25·64	1·78	39·18	0·94
Maize	13·12	9·85	4·62	68·51	1·51	29·78	1·10	2·17	15·52	0·76	45·61	0·78	2·09	0·91
Rice	13·11	7·85	0·88	76·52	1·01	25·04	4·21	3·73	11·08	1·43	53·76	0·50	2·59	0·13
Millet	11·66	9·25	3·50	65·95	1·67	11·39	1·30	0·63	9·63	1·08	21·92	0·24	52·97	0·49
Peas	14·99	22·85	1·79	52·36	2·58	43·10	0·98	4·81	7·99	0·83	35·90	3·42	0·91	1·59
Lentils	12·35	25·70	1·89	53·46	3·04	34·76	13·50	6·34	2·47	2.00	36·30	...	...	4·63
Beans	14·76	24·27	1·61	49·01	3·26	41·48	1·06	4·99	7·15	0·46	38·86	3·39	0·65	1·78
E. *Seed Fruits*—														
Walnuts	4·68	16·37	62·86	7.89	2·03	31·11	2·25	8·59	13·03	1·32	43·70	...	...	...
Coco-nut	46·64	5·49	35·93	8·06	0·97	43·88	8·39	4·63	9·44	...	16·99	5·09	0·50	13·42
Cocoa-bean	3·63	11.99	49·32	26·43	3·48	31·28	1·33	5·07	16·26	0·14	40·46	3·74	1·51	0·8
F. *Fruits*—														
Apples	84·79	0·36	...	12·04	0·49	35·68	26·09	4·08	8·75	1·40	13·69	6·09	4·32	...
Pears	83·02	0·36	...	11·80	0·31	54·69	8·52	7·98	5·22	1·04	15·20	5·69	1·49	...
Cherries	79·82	0·67	...	12·00	0·73	51·85	2·19	7·47	5·46	1·98	15·97	5·09	2·04	1·35
Grapes	78·17	0·59	...	16·32	0·53	56·20	1·42	10·77	4·21	0·37	15·58	5·62	2·75	1·52
Plums	84·86	0·40	...	8·24	0·66	59·21	0·54	10·04	5·46	3·20	15·10	3·83	2·36	...
Strawberries	87·66	0·54	0·45	7·29	0·81	21·07	28·48	14·21	...	5·89	13·82	3·15	12·05	1·69
Gooseberries	85·74	0·47	...	8·43	0·42	38·65	9·92	12·20	5·85	4·56	19·68	5·89	2·58	0·75
G. *Animal Products*—														
Flesh of Mammals	72·00	20·00	5·00	0·40	1·10	{41·27[1] {37·04[2]	3·63 10·14	2·82 2·42	3·21 3·23	0·70 0·44	42·54 41·20	1·56 0·98	1·11 0·69	3·85 4·66
„ Birds	76·22	19·72	1·42	1·27	1·37	30·90	18·70	3·25	4·15	...	36·40	...	...	8·05
„ Salt-water fish	80·97	17·07	0·34	...	1·64	21·80	14·90	15·20	3·90	...	34·50	...	...	11·40
Blood of Ox	80·82	18·12	0·18	0·03	0·85	7·61	44·99	1·08	0·60	9·38	5·25	3·05	0·84	34·38
„ Pig	79·40	18·97	0·80		0·82	23·29	29·43	1·30	1·40	8·86	12·15	1·03	...	28·52
Chickens' eggs	73·67	12·55	12·11	0·55	1·12	17·37	22·87	10·91	1·14	0·39	37·62	0·32	0·31	8·98
„ „ white	85·75	12·67	0·25	0·74	0·59	31·41	31·57	2·78	2·79	0·57	4·41	2·12	1·06	28·82
„ „ yolk	50·82	16·24	31·75	0·12	1·09	9·29	5·87	13·04	2·13	1·65	65·46	...	0·86	1·85
Gruyère cheese	33·61	32·42	29·67	...	4·78	2·46	[33·01]	17·82	0·81	0·17	20·45	...	0·08	[33·61]

---

[1] Bloodless meat as usually consumed.

[2] Meat containing blood.

book.[1] Dr. Haig (*loc. cit.* page 1 e.a.) expresses himself in the following words:—

"It was in the year 1882 that I began to investigate the periodic headache from which I had suffered all my life, and from which up to that time I had not obtained any kind of relief. After numerous drugs had been given up in disgust, I began to try alterations of diet, and I eventually found that as I diminished the use of animal flesh I suffered less frequently and less severely. This headache had been to me for many years a serious matter, for during practically the whole of my student career, both at Oxford and in London, I lost from one and a half to two days almost every week in recovering from headache, or from the powerful drugs which were used in treatment. Further I may say it is certain that if I had not discovered its cause, it would some time ago have developed into its final stage, that of Bright's disease, and thus probably before now have put an end to my life. It has been my lot to see not a few of my teachers and fellow-students succumb to the disease from which I found the means to escape, in discovering that it was not, properly speaking, a disease, but the result of mistaken and injurious foods, and that it was therefore still possible to retrace my steps. In consequence of the results produced by this diminished use of flesh foods, I was led into a series of experiments on myself and others with regard to their effects. These experiments led me to investigate the urine, and eventually to pay considerable attention to the excretion of uric acid, and further research brought out the important fact that the headache was always accompanied by a large excretion of uric acid in the urine. I soon found that not only the headache, but each and all of its concomitant symptoms, bore exactly the same relation as the main symptom to the excretion of uric acid, and I further found that by controlling the excretion of uric acid in the urine I could in all conditions control both the incidence of the headache and the appearance of its chief attendant symptoms. Thus, for instance, I found that when a headache was going on, together with a large excretion of uric acid in the urine, it was only necessary to administer a small dose of a mineral acid to diminish the excretion of uric acid in the urine and to clear up the headache with all its concomitant symptoms, while with this clearing up and accompanying diminution of uric acid in the urine there very often appeared a fresh symptom, namely, a certain amount of pricking and shooting pain in some of the joints and fibrous tissues of the body. A further experimentation sufficed to show that what I had just discovered in the case of this periodic headache (migraine, or as I now call it the 'uric acid headache') was but one instance of a general law, and that it was in my power, with acids and with numerous other substances, to diminish at any time the uric acid in the urine, and so to cure headache, and all similar conditions, while it was also equally in my power at any time to increase the uric acid in the urine by giving a solvent alkali, and to produce headache and its concomitant symptoms by so doing. In fact, I soon found out that by the administration of solvents of uric acid, on the one hand, or precipitants of uric acid on the other hand, I could make the excretion of the acid in the urine from day to day or from hour to hour exactly what I pleased, and that in altering this excretion I altered all the symptoms which had been found in relation to it.

---

[1] In this connection I also beg to draw the reader's attention to Prof. Ebbard's treatise on "How to Acquire and Strengthen Will-Power," in which a concise exposition of the uric acid theory appears.—F. W. V.

"I had thus come in sight of the fact that uric acid was directly or indirectly the cause of headache and of the conditions that grouped themselves round it, and that uric acid was also the cause of a certain amount of pain in the joints or fibrous tissues; this pain being but a minor degree of the troubles which have long been known as gout and rheumatism. We see here, in their simplest terms, the two great classes of uric acid diseases: firstly, those which, like the headache, are due to its excess in the blood, of which excess in the urine is a symptom; and secondly, those which are due to its excess in the joints or fibrous tissues, of which its great diminution in the blood and urine is a symptom. In fact, I soon believed (what I have since been able to prove) that the explanation of my results could only be that there was an excess of uric acid in the blood at the time when it was passing in excess into the urine, and that there was but little uric acid in the blood at the time when it was present in very small quantity in the urine. A further investigation of the periodic headache, its history, its concomitant symptoms and its reaction to treatment, brought out the fact that it may be said with certainty to be due to high blood pressure. Not only was it found that the pain was aggravated by every kind of movement which would raise the blood pressure, but it was affected by posture, such as stooping, which increases blood pressure in the head, and improved by the vertical posture, standing or sitting straight upright, while it was relieved or even reduced to nothing by pressure on the arteries of the neck, thus restraining the force with which the blood was driven into the vessels at the base of the skull. Such being the character of this headache, the question arose, How could it be connected with excess of uric acid in the blood and excess of uric acid in the urine? and the natural suggestion seemed to be that the uric acid might in some way irritate either the vaso-motor centre or the peripheral vaso-motor nerves, and, by causing contraction of the minute arteries, bring about such a rise of blood pressure as would produce the results which appeared.

"It then gradually dawned upon me that directly or indirectly uric acid controlled the circulation of the whole body, and produced high blood pressure on the one hand, or low blood pressure on the other, according to the amount of the substance present in the blood and circulating fluids. But I was still in doubt as to the way in which uric acid produced this effect, whether by acting on the vaso-motor centre, on the peripheral vaso-motor nerves, or in some other way, and for a time I was unable to get further, though I found that uric acid, in explaining for me the causation of the headache from which I suffered, had given me also a complete explanation of a very large number of disease processes which grouped themselves round that headache in a natural grouping, due to the fact that they, with the headache, were results of one common cause.

"Among the diseases thus grouped was Raynaud's disease, of which I shall have a good deal to say further on. But I found on reading up Raynaud's writings that he had noticed there was a very marked slowing of the capillary circulation in the skin, so that if a white patch were produced by pressure on the surface, in normal conditions the blood would return into it in two or three seconds, but that in his disease a white patch similarly produced would remain more or less white for a considerable time, and the blood might not return into such a patch for as much as twenty or even thirty seconds. Believing then, as I had come to do, that Raynaud's disease was nothing but one of the circulation effects of uric acid, it struck me that if in this case there was such a difference between the rate of the capillary circulation in the skin as has been above mentioned, in slighter conditions of uric acid trouble we should probably meet with similar alterations in the capillary circulation, differing merely from this great fluctuation in degree; and I at once set to work to see whether this was the case, examining the question both in physiology and pathology. In the case of physiology, and to some extent in pathology also, I produced all the various fluctuations I was accustomed to produce in the excretion of uric acid, and, as I believed, in the amount in the blood, and I soon found that every fluctuation so produced was accompanied by a quite obvious and distinct fluctuation in the rate of the capillary circulation. . . .

" Obviously uric acid thus controlling the capillary circulation was the cause of the high blood pressure, which was in turn the cause of the excessive pressure in the skull, and so of the pain and of the periodic headache from which I suffered. . . .

" Any third year's student can now observe the presence and approximate quantity of uric acid in the blood. He can demonstrate that this quantity varies with slow or quick capillary circulation and that this quick or slow capillary circulation similarly goes with low or high blood pressure; that with the low blood pressure you get the arthritic and fibrous tissue irritation, which shows that uric acid is being deposited in these tissues and being cleared out of the blood, and with the slow capillary circulation and high blood pressure you get all the group of so-called diseases, headache, epilepsy, mental depression, vertigo, and the whole collæmic group which are due to its effects on the circulation. These, it is now obvious, are not, strictly speaking, diseases at all, they are merely results of the action in the body of a single substance, and that single substance though formed in the body to some extent, is not in normal conditions produced in such amount as to be harmful. It is only when, to the quantity of this substance formed in the body, we add an equal or greater quantity already formed in the foods which we eat and thus introduced in these foods, that it comes to be present in the circulation or in the tissues in amounts sufficient to produce serious disturbance. I have therefore ceased to speak of these disturbances as diseases, though in the chapters which follow I shall mention them by their usual names so as to make it clear to what I am referring. But it will, I am sure, become more and more evident that we are dealing in all these matters not with diseases, but with results of food-poisoning.

"At this point we were still in doubt as to the way in which uric acid obstructed the capillary circulation and raised the blood pressure, but it very soon became evident, as will be shown in later chapters, that the only complete and satisfactory explanation of these facts was that uric acid obstructed the capillaries directly by its presence in the blood in the form of a colloid, which, hindering the capillary vessels, obstructed the flow from the arteries into the veins very greatly, and thus whenever there was a strong heart behind it caused a more or less distinct rise of blood pressure. It will be seen later on that this effect of uric acid explains a number of facts which are quite inexplicable, on the theory that uric acid may affect the vaso-motor centre or the peripheral vaso-motor nerves."

Quoting from Dr. Haig's larger book, referred to above, we may sum up his uric acid theory in his own words, viz.:—

". . . Uric acid affects not only the blood, but influences in a similar way the functions, nutrition, and eventually the structure of every organ and tissue in the body, and as regards infectious diseases has in some cases a more important influence than the microbes themselves. As regards the tissues it controls not only their nutrition, but also their great physiological functions, the production of energy, and the production of heat, to an extent which, acting as it does from hour to hour throughout the whole of life, cannot but be of enormous importance.

"But more recent advances have carried us far beyond this, and we can now say, with absolute certainty, that uric acid controls and conditions the capillary circulation of the whole body (and this control can be demonstrated in less than a minute, and by any one without instruments) and thus regulates the blood pressure, the heart's action, the nutrition of the heart and vessels, the nutrition of the tissue and all the metabolic phenomena which constitute the life of the body to its minutest cells."

Dr. Haig's hypothesis that uric acid obstructs the capillaries in the form of a colloid, causing a degeneration of the blood which he calls collæmia, is theoretically rather fascinating but does not materially affect our course of procedure. Still, in order to make his views quite clear, we once more recapitulate Dr. Haig's own words (*loc. cit.*, page 52 e.a.):—

"If uric acid blocks the capillaries in the way that it is supposed to do, it is probably present in the blood stream in the condition of colloid or gluey material, similar to the colloid and gelatinous urate of silver which is found in Haycraft's process for the estimation of uric acid, and which so greatly blocks the filter that it is sometimes impossible to produce proper filtration, even with the powerful aid of a suction pump. Indeed, it was the fact that so much suction power was required to effect this filtration which led me to see that the influence of uric acid on the capillaries was probably mechanical and due to its colloid particles blocking, or obstructing, these tiny blood paths. This being so, I have been led to refer to this action of uric acid as a colloid in the blood stream and its action as an obstructor of the tiny capillaries. As we have already seen, the immediate effect of obstructing the capillaries is to cause a rise of blood pressure between the capillaries thus obstructed and the heart which is doing its utmost to drive the blood forward. We may divide the collæmic troubles into groups according as they are due to (1) high blood pressure in the arteries, (2) the difficulties which the heart experiences in driving the blood through the capillaries, (3) the obstruction in the capillaries themselves, or lastly, (4) that defective combustion of the fires of life which results from the defective circulation in the capillaries all over the body."

The theory of uric acid being both the generator and diffuser of the disorders above named, *i.e.*, gout, rheumatism, headache, epilepsy, convulsions, hysteria, mental disorders, exhaustion and suspended heart's action, asthma and bronchitis, dyspepsia and gouty colic, anæmia, Bright's disease, diabetes, heart disease, &c. &c. in the human system is fully as important as the discovery of the bacilli as agents of infection.

As we have already almost trespassed the limits of quoting from Dr. Haig's treatise, we cannot do better than to recommend to the reader, who would know all the details of Dr. Haig's interesting researches, the study of the smaller book[1] referred to above, and quoted from, in our present effort to elucidate the nature of disease and the various interesting and valuable theories advanced in aid of such inquiry.

---

[1] "Uric Acid, an Epitome of the Subject," by Alexander Haig, M.A. M.D. Oxon., F.R.C.P. (price 2s. 6d. net, postage extra).

In addition to Dr. Lahmann's "*dysæmia*" we now have Dr. Haig's "*collæmia*" as an all-powerful disease engenderer which influences the entire vital functions. The very importance of this discovery has induced us to quote Dr. Haig's works at such length. Dr. Haig bases his views, as we have seen, on the important fact that uric acid causes not only headache, but also a high tension of the pulse, generally attended by, or at all events coinciding with, cold extremities. And, further, that uric acid, by clogging the capillaries and thereby increasing blood pressure, retards the pulse in accordance with Marey's law which states that the frequency of the pulse is in an inverse ratio to arterial pressure. From this fact Dr. Haig deduces the following:—

"*If my premises are good, and my deductions sound, and if uric acid influences the circulation to the extent which I have thus been led to believe that it does, it follows that uric acid really dominates the functions, nutrition, and structure of the human body to an extent which has never yet been dreamed of in our philosophy, and in place of affecting the structure of a few comparatively insignificant fibrous tissues in which it is found after death, it may really direct the development, life history, and final decay and dissolution of every tissue, from the most important nerve centres, and the most active glands, to the matrix of the nails, and the structure of the skin and hair.*"

Dr. Haig's discovery is of particularly far-reaching consequence for the understanding of all mental and psychic defects and ailments, for also in these does uric acid form the material vehicle in the last instance. It is particularly here that we are so easily misled into always confounding cause and effect. For the host of nervous diseases, for instance, the struggle for existence, the modern competitive spirit and an over-indulgence in the pleasures of social life are generally made responsible. But, while this nervosity may certainly be directly caused by this modern mode of living, we must bear in mind that many individuals work harder and enjoy themselves "harder" than others, and yet remain healthy and know not the meaning of "nerves." And even if attacked by an acute disease, they rally quickly and exhibit no signs of bad after-effects.

We are prone to make the ominous mistake of ignoring the real causes and adhering solely to direct external influences. The struggle for existence and such-like conditions have nothing whatever to do with the actual nature of the pathological conditions. The exhausted, nervous man of to-day is ever ready to blame "overwork" for his condition, but alongside of him there are others who work more and have worked harder than he, who still remain perfectly fit and buoyant. Not in external influences should he seek the cause of his suffering, but in himself, in his own bodily condition which either was bad from the very start or grew to be so through irrational living. Overwork was but an external incidence which brought out the prevailing internal disturbances, and these, only, furnish the true cause of his suffering. One and the same external cause will have a totally different effect on two different individuals—the one may be driven to insanity while the other remains perfectly sound and "untouched." The general saying would be, the former went mad for such and such a reason. Not at all; the man was already in himself diseased, and that particular incidence only brought *out* the disease and revealed its existence.

Although we must admit that Dr. Haig has laid himself open to frequent criticisms on the part of a good many serious investigators chiefly on account of his rather speculative hypotheses as regards the form and nature uric acid assumes in the blood-stream (*e.g.*, clogging the capillaries in a colloid form) for which assumption he is unable to adduce convincing proof, we must admire and endorse many of his deductions, and acknowledge that he has given us an insight into these internal derangements. Blood overcharged with uric acid entails retardation, and clearing the blood of uric acid is tantamount to acceleration of the circulation. The overcharging of the blood with uric acid lowers the entire vital functions; the elimination of the uric acid heightens the vital functions. The effect of the uric acid, as shown above, manifests itself first of all in a general depression, irritability, mental and psychic discomfort which constitute the first symptoms of neurasthenia.

Dr. Haig very cogently, though somewhat extravagantly, remarks: "Clear the blood of uric acid, and as the blood pressure is reduced and the pulse rate quickened and the urine increased, the mental condition alters as if by magic; ideas flash through the brain, everything is remembered, nothing is forgotten, exercise of mind and body is a pleasure, the struggle for existence a glory, nothing is too good to happen, the impossible is within reach, and misfortunes slide like water off a duck's back (well-being). To such a terrible extent are we creatures of the circulation in our brain."

We particularly wish to point out that the term "uric acid" must not be misunderstood. Dr. Haig does not refer to uric acid exclusively, but also to other agents, such as sodium urate, oxalic acid, xanthine, hypoxanthine, and other members of the xanthine group; and last, though not least, to certain anomalous products of gastric fermentation. It is shown, however, that they all have physiologically and pathologically the same effect as uric acid, and hence, for the sake of brevity, uric acid alone need be referred to in describing that effect. By way of confirming this assertion, we may mention that this theory has been supported by other able investigators, and principally by Mr. E. Fischer, in his studies of xanthine, hypoxanthine and related bases. We point this out especially because some medical men deprecate, and bestow just as little attention upon the uric acid phenomenon as was done heretofore. Uric acid has been recognised already for a long time as the cause of gout and rheumatism[1];

---

[1] The following quotation from *Science Siftings* throws a curious side-light on the unsettled views of professional men. The uric acid theory as expounded by Dr. Haig and others is hardly a few years old, and already opponents are rising up to contradict what has been the outcome of years of hard study. The following appears to me to amount to little more than a quibble at words, inasmuch as so long as their action and effect be similar, or even their causation, it matters little whether *carbonic* acid or *uric* acid be the disturbing elements, as long as our means of eliminating or preventing the introduction into the system of any injurious substances are judicious and supported by practical success. "S. S." writes (the italics being mine):—

"Dr. Donald F. Shearer considers that gout and all so-called uric acid conditions arise from excess of *carbonic* acid in the blood. Meat lately also the great influence it has in epilepsy has been admitted inasmuch as a uric acid diathesis could always be proven in epileptic fits. If, therefore, in the course of our inquiry we, in short, speak of "uric acid," we refer comprehensively to the whole group of poisonous urates established by Dr. Haig and others, we shall also frequently make use of the comprehensive term "blood-poisons."

We are now confronted by the extremely difficult task of trying to arrive at an intelligible conception of the processes underlying the formation and origination of uric acid. This theme has of late been the subject of much heated contro-

diet increases the carbonic acid in the blood, and *blood so poisoned would have the power to prevent the excretion of uric acid* (*sic !*), and lead to an accumulation of it (uric acid ?) in the system such as accompanies gout. The normal daily excretion of carbonic acid is 800 grammes. A man doing hard work will excrete much more largely—say 1,200 grammes—and in order to maintain his weight would have to consume food of corresponding weight (?) and quality. If, now, we supply such a quantity of food without permitting the muscular activity necessary to excrete it, the man will either not assimilate it, or he will convert it into fat, or he will metabolise it and excrete it as carbonic acid. But we are told that he does assimilate the food, and excrete it as carbonic acid, incidentally causing an excessive accumulation in the blood. Therefore, the normal and healthy man regulates to some extent his diet by his activity, but the man who is to become gouty fails to keep the necessary balance and continually and continuously soaks his arterial system and his kidneys with blood overcharged with *carbonic acid*." As I shall endeavour to show further on and particularly in the section of the present work devoted to the application of the knowledge derived from all these divers theories, it would make little difference if we substituted uric acid for Dr. Shearer's more modern "carbonic acid." It will also be interesting to compare Dr. Cantani's oxidation theory with Dr. Shearer's views. Although they may differ in terms, practically all these theories recognise the same fundamental physiological principles on which we are now endeavouring to build up our therapeutical system.—F. W. V.

versy, and it is well-nigh impossible to form a clear opinion from all those contradictory statements and theories. Still it is absolutely essential to sift the material and come to the best conclusion we can.

It is doubtful whether Dr. Haig will be able to carry the day with his conception of the *origination* of uric acid in the long run; but we cannot afford to dismiss it offhand as it is our task to give all views on this subject a fair hearing.

Dr. Haig rejects what he describes as the "fairy tale" of a uric acid *diathesis*, *i.e.* an individual predisposition for the excessive formation of uric acid in the body. By his own observations and wide experience he endeavours to prove that no special disposition for uric acid formation is required. What he maintains is that uric acid may accumulate to excess in any one, and that this depends solely on the qualitative nature of the food ingested. Uric acid, and the urates, which are germane thereto in their action, are formed *beforehand* in the food substances, and it depends upon the choice of the latter whether an individual will suffer from an overcharge of uric acid or remain free from it.

With due reference to the proportion of uric acid or xanthine contained in the different foods, Haig has compiled the following table:—

Substance.	Uric Acid and Xanthine per cent.	Grains per lb.
Lamb (cold roast leg)	0·050	3·5
Soup (made from bones)	0·0068	0·48
„ (made from meat)	0·0202	1·4
Hospital Beef-Tea	0·0980	7·0
Saddle of Mutton	0·020	1·4
Mutton (cold roast leg)	0·016	1·1
Veal (cutlet)	0·049	3·5

Substance.	Uric Acid and Xanthine. per cent.	Grains per lb.
Beef (cold sirloin)	0·016	1·1
Kidney of Sheep	0·049	3·5
Liver „ „	0·091	6·5
Fowl (breast)	0·024	1·7
Rabbit	0·015	1·0
Mackerel	0·032	2·2
„ (boiled only quarter of an hour)	0·015	1·0
Plaice	0·0039	0·2
Herring (fresh)	0·0040	0·2
„ (Loch Fyne, kippered)	0·0900	6·4
„ (bloater)	0·031	2·2
Beef-Steak (treated raw)	0·019	1·3
Meat-Juice	0·697	49·7
Meat Extract	0·883	63·0
Tea	2·5	175·0
Coffee	1·0	70·0
Cocoa	0·84	59·0

According to this table the action of tea and coffee is the most injurious of all. Dr. W. T. Morgan has also subjected tea to some searching tests. For periods of seven days in succession he took green tea in proportions, gradually raising from 7 grammes to 14 grammes, dissolved in 600 grammes of water. The result was an increase in the amount of uric acid from ·33 grammes to ·5, ·6, ·7 and ·8 grammes.

Dr. Haig has compiled this table in the first instance as a warning against the consumption of flesh-foods. Up to the present meat has, indeed, been regarded as the chief source of uric acid formation, particularly in gout and rheumatism. The latest researches, however, do not consider uric acid the by-product of the albuminates, but rather that of the nuclear substances. Thus also pulse (as peas, lentils, beans) belong to the category of uric acid producers. Dr. Haig has proved this fact by experiments upon himself, and in consequence thereof later on excluded pulse from his diet list. This subject will be dealt with more exhaustively in the chapters devoted to the treatment and prophylaxis of uric acid states, and need not, therefore, be further gone into at this juncture.

We will now sum up the gist of Dr. Haig's discoveries. Without dwelling upon the point of controversy whether uric acid be directly introduced into the blood from the several food substances or whether it should be regarded as a product of decomposition of the albuminates (or rather nuclear substances), Dr. Haig has shown us that in fact all disturbances in our organism (barring, of course, those of a purely anatomical or mechanical nature and general under-nutrition) have uric acid for their *material vehicles.*

These disturbances consist chiefly in two forms: either uric acid is present in the blood (in the circulation) or it quits the blood circulation and is deposited in the tissues. If the system be excessively overcharged with uric acid, both forms may exist contemporaneously.

We must, however, lay emphatic stress on the importance of carefully distinguishing between these two forms, and of clearly grasping their correlativeness in order to enable us to recognise the divers pathological phenomena resultant upon these conditions, with the ultimate view of successfully combating them.

When uric acid circulates in the blood, and is not, or cannot be, expelled, it assumes, according to Haig, a colloid form and clogs the capillaries, thereby causing the above-described disturbances of the blood circulation with all their grave consequences. Now, it must not be supposed that this uric acid obstruction affects all the capillary vessels of the body *simultaneously*, as that would probably be tantamount to a standstill of the blood circulation. We must, moreover, presume that collæmia only attacks the capillaries of single tissues or organs, as, for instance, in the case of megrims the brain, hence we can speak of cerebral or brain-collæmia.

Collæmia alone, we see, is capable of throwing an organ into a diseased condition. Brain-collæmia, for instance, can be the material basis of neurasthenia and a whole host of nervous symptoms; and the removal of that brain-collæmia has so far been the most successful means of treating neurasthenia, especially if combined with a rational course of psycho-therapeutics to which we shall refer at length in a later chapter. Certainly the blood may be equably charged with uric acid before collæmia establishes itself; but collæmia will originate through uric acid depositing itself in some network of capillaries and accumulating rapidly and thus causing the obstruction of that particular network of capillaries while other capillaries remain free and permit an unimpeded circulation of the blood.

As soon as collæmia sets in in a certain tissue or organ, the blood circulation primarily in that particular part is retarded, the metabolic process and consequently the working power is diminished, and that organ becomes diseased. This explanation is not unlike Pastor Kneipp's and other nature-doctors' who maintain that the origin of all diseases may be traced back to a stagnation of blood ; only their explanation is not as tangible and well-authenticated as Dr. Haig's.

On the other hand, however, uric acid (and xanthine) can also separate itself from the circulation and settle in the tissues. The deposit may be temporary only, or it may be lasting, as indeed uric acid has been found in all tissues after death. We need hardly point out that this uric acid deposit in the tissues likewise causes disorders. Gout and rheumatism, for instance, are the direct outcome of such deposits; and the only way to get rid of these complaints is to remove the uric acid deposits. Similarly as in collæmia, these deposits will also be localised. In cases of excessive uric acidity collæmia and uric acid deposits may occur simultaneously; in very grave cases of neurasthenia, *inter alia*, we may presuppose this. Deposits in the brain would, through affecting the centres of innervation, explain all states as hyper-irritation and paralysis.

Dr. Haig's observations and ascertainments as regards the correlativeness between collæmia and uric acid deposits are most interesting. The excretion of uric acid is in a fixed proportion to urea according to Haig and other investigators, as 1 : 35, assuming, of course, normal excretion. Should the excretion of uric acid exceed this proportion, say as 1 : 20, then the blood is overcharged with uric acid, indicating collæmia or deposits, or both together, and engendering disease processes. If the excretion of uric acid stand in lawful relationship to that of urea, we may presume a similarly lawful relationship between the uric acid in the blood and the uric acid deposits in the tissues. The physical and chemical laws which regulate this relation, are as yet unknown to us, Dr. Haig, however, has at least proved under what conditions collæmia or deposits will result.

The indisputable fact has been established that, if the blood be acid or if acids be introduced into it, the uric acid will immediately disappear from the blood and be driven into the tissues. Dr. Haig has clearly proved this by numerous tests and the use of medicaments. Every acid in the blood does away with the collæmia and forces the uric acid into the tissues. Acids, it must be understood, merely drive the uric acid *out of the blood stream but not out of the body*, it (the uric acid), moreover, remains temporarily in the tissues, awaiting all the time an opportune moment to re-enter the blood. The uric acid, thus retained in the tissues, causes, when it re-enters the blood, collæmia, and thereby brain-collæmia, and what Haig calls the "uric acid headache." For the tissues, on their part, provided they still possess their full reactive power, are continually striving to rid themselves of the invading foreign bodies, the uric acid deposits, and thus, if overwhelmed, of their own account drive the uric acid back into the acid blood. We must naturally take the condition of the blood into consideration to gauge in how far the tissues may succeed in ridding themselves of the uric acid deposits; the more this power is decreased, the more uric acid will deposit itself there and cause disease. These processes confirm the often-expressed opinion of divers scientists in reference to the nature of the acute diseases, namely, that the latter merely constitute the crises in the process of Nature's endeavour to heal. When the uric acid retained in the tissues re-enters the blood and causes cerebral collæmia (or an attack of megrims), the latter really denotes the crisis in the process of the elimination of the uric acid.

Uric acid, however, must not be confounded with the acidity of the blood. The latter is a qualitative property of the blood in itself, and has nothing to do with the uric acid, which plays quite an independent part in the blood. As we have seen, the acidity of the blood is diametrically opposed to the alkalinity of the blood.

Similarly the action of the alkaline blood on the uric acid is contrary to that of the acid blood. While the acid blood retains the uric acid in the system and stores it up in the tissues, the alkaline blood, on the contrary, draws the uric acid out of the tissues and brings it back into the blood-stream. This fact is of utmost importance! The alkaline blood frees the tissues from uric acid deposits, thus preventing disease, or should a disease already prevail, brings about its cure.

But at this point we must stop short. That the alkaline blood dissolves and fetches the uric acid out of the tissues has been shown us by Dr. Haig, but our authority also demonstrates that the uric acid thus brought back into the blood remains there and causes collæmia. Dr. Haig has proved this in a striking manner by the artificial introduction of alkalies. But whether the presence of the uric acid in the alkaline blood be but transient, or whether the alkaline blood again can remove the collæmia and eliminate the uric acid from the system, is, in spite of Dr. Haig's very positive assertion, still a point at issue. But very much indeed depends on this point at issue, in fact, considering the all-embracing significance of uric acid, our entire system of treatment and method of cure. Dr. Haig maintains that the uric acid is excreted by the kidneys without any assistance, *eo ipso*, because the administration of alkalies causes a rise of uric acid in the urine and the body remains free from it *as long as the uric acid be not driven into the tissues by acids and as long as no fresh supply of uric acid be introduced into the system by means of food-stuffs rich in themselves in uric acid.* Dr. Haig emphatically disputes the necessity of oxygen for the elimination of uric acid. He says, moreover, that all the oxygen in the world would not suffice to burn up the uric acid, which, if once formed, would remain, and could only be excreted through the kidneys.

On this point Dr. Haig and the famous Italian physician, Dr. A. Cantani, flatly contradict each other, although the latter's theories are no less initiating and epoch-making than the former's; indeed, Cantani's cures were so brilliantly successful and extraordinary that the fame of his name spread near and far, attracting patients from all parts of the globe to Naples. Dr. Cantani applied his theories first of all to the treatment of oxaluria, gout and rheumatism, effecting cures which were then regarded as almost miraculous. But, strange to say, his death (1898) brought comparative oblivion of his scientific triumphs with it, and the application of Cantani's principles is now hardly ever heard of. Still his principles are as efficacious now as they were during his lifetime, for which ample proof can be furnished. Practical results are the best guarantee for the utility of a principle or theory.

Dr. Haig and Dr. Cantani, it appears, were not acquainted with each other. But, curiously, they both profess Dr. Garrod's views on uric acid, which, however, have been somewhat modified by the most up-to-date researches. Still it is necessary to give Dr. Cantani's arguments in favour of his theories, based on Garrod's views, a hearing, in order to gain a key to the comprehension of his curative principles. Mr. P. M. Heubner has already treated this important subject in a monograph entitled "Perpetual Health,"[1] to which we beg to draw attention, and from which we take the following extract (*loc. cit.*, 13 e.a., 1st edit. 1902):—

"To give the reader a clear conception both of the process of production of the uric acid, and of the methods whereby it may best be checked or prevented, I will now endeavour to expound, in a condensed form, Cantani's unquestionably novel and original views on the subject. There can be no doubt but that those views approach the truth very closely, since, as I have above remarked, Cantani has treated gout, rheumatism, gravel, diabetes, &c., with the most signal, and hitherto unattained, degree of success.

"The first question is: How and where does uric acid form? Uric acid is a body containing nitrogen, hence it can only be derived from the nitrogenous constituents of the organism, viz., the albuminates and the glutinose substances (albuminoids, proteids). When the uric acid is completely burnt or oxidised, it yields, as we have seen before, urea, carbonic acid and water; the nitrogen in that case remaining bound to the urea.

---

[1] "Perpetual Health: How to Secure a New Lease of Life," by P. M. Heubner and F. W. Vogt (2s. 6d. net, postage extra).

"Chemically speaking, urea is a product of oxidation of a higher order than uric acid; in other words, as a product of the oxidising process, uric acid must form *before* urea; urea is, in effect, but a product of the combustion of uric acid. Hence, as Liebig explained some time ago, uric acid, considered with regard to the order of successive oxidation of the several albuminous substances, occupies a position between creatin and urea; it is a higher product of oxidation than creatin, and a lower one than urea; it ought to be capable, therefore, of forming throughout the entire organism.

"However, as regards the particular spot or region where uric acid forms, opinions diverge somewhat widely. The majority asserts that uric acid originates solely from the kidneys, but Cantani offers a determined opposition to this view: he contends that uric acid develops throughout the system—in all tissues, without exception. To be sure, the kidneys do produce uric acid, because the kidneys, like all the other organs, absorb albuminous matter for their own tissue-formation. Cantani admits, too, that in the healthy individual uric acid forms in the kidneys *principally*, but he thinks that, in the case of an individual whose blood is charged with a large amount of uric acid, this acid must indisputably develop also in a great many other organs, and in far larger quantities than in a healthy person.

"Now this excess of uric acid Cantani attributes, primarily, to the disproportion existing between the nutriments admitted into, and the work accomplished by, the system; his point is that an excessive amount of uric acid will develop whenever the body receives more matter than it can utilise. Ever since remote antiquity this lack of proportion between nutrition and organic consumption has been described by physicians as the cause of gout, and it has been the preponderating opinion that gout arose from too liberal a supply of albuminates, or, to put it more correctly, from nitrogen-holding substances generally (including gluten and proteids).

"The overloading of the body with food results in too great a strain being imposed upon its powers of combustion or oxidation; these powers are inadequate to cope with all the matter received; part only of the nitrogenous substances (proportionate to the power actually expended) is burnt up, while the rest comes to a standstill, as it were, at a stage antecedent to that of urea, viz., the stage of uric acid. Broadly, then, there takes place in the uric acid phase a partial retardation of the assimilative and tissue-building process; a "hitch" in the conversion and combustion of the nitrogenous substances; and this hitch or stoppage—whilst to a limited extent, it can, no doubt, occur even in the healthy individual—affords, however, in the case of a sufferer from gout, a much broader base for morbid complications—in this sense, that a larger proportion of the nitrogenous substances, which, in the healthy man, would have to be converted into urea, in the case of the gouty subject must (because they exceed the actual demand) stop short at a lower stage of oxidation than that at which urea is formed, namely, the stage of uric acid formation.

"If, therefore, we would ascertain the primary cause, the *ultima ratio* of gout (for example), and understand, so to speak, the "inner workings" of the disease, we must take great care to distinguish the initial process of the development of gout from what is merely the direct cause of the local phenomena, viz., the irritation of the joints. This local irritation is the result of uric acid deposits; but the matter that goes to form these deposits is produced by certain disturbances in the chemical changes involved in the work of assimilation and tissue-building; the normal activity of the tissues and organs themselves—and in the special case of gout the process of nutrition of the cartilages —are being interfered with.

"According to Cantani, the fundamental principle which underlies the origin of all deposits or concretions is a stoppage or break occurring at an early stage in the series of physiological changes and in the regular course of decomposition of the products of oxidation, *i.e.*, *before* the stage which these processes should normally attain. To this fundamental principle Cantani traces back all troubles of a metabolic nature. Thus, in his opinion, it is the sugar in the cases of diabetes and oxaluria, the albumen in gout and in the formation of uric-acid calculi, and the fat in obesity, which are incompletely oxidised; for perfect oxidation should have converted albumen into urea, and the sugar and fat into carbonic acid and water."

Cantani, we have seen, adheres, as regards the origination of uric acid, to the then preponderating general opinion—and particularly to Garrod's—that uric acid constitutes a product of the decomposition of the albuminates, without, however, trying to account in any way for their further action. It must also be borne in mind that Cantani limited his treatment of uric acid to the domain of gout and rheumatism, whereas Haig demonstrated its pathological significance for the entire province of pathology. Haig, maintaining the direct introduction of uric acid into the body by dint of the food-stuffs ingested, is at variance with Cantani, who contends that uric acid is the anomalous metabolic product of the albuminates. As regards the excretion of uric acid, however, these two authorities are absolutely contradictory and adversative.

Whilst, as shown above, Haig avers that the uric acid, once formed, remains unchanged and unchangeable and is only excreted through the kidneys, Cantani firmly, and to our mind more convincingly, asserts that uric acid is but a stage of oxidation antecedent to that of urea, and that by a fresh supply of oxygen it is "burnt up" to urea, *i.e.*, can disappear from the organism and be excreted as urea.

We shall see later on that Cantani accomplished his extraordinarily successful cures on the strength of these principles—cures which are all the more admirable as they were brought about without the use of any medicines or drug-poisons, but simply and exclusively by dietetic precepts.

Cantani shares Haig's opinion that certain foods directly favour the formation of uric acid, but again deviates from Haig by considering the quantity of food, the "too much" or "luxury-consumption" of paramount importance. That Cantani is right on this starting-point is confirmed by his successes, his whole therapy being really an endeavour to do away with this "luxury-consumption." And again starting from this point he arrives at his oxidation theory which furnishes the immediate foundation of his dietetic method of cure which we shall investigate more closely anon.

There are certainly numerous other ingenious theories dealing with the nature of disease, but our purpose demands the consideration of those conceptions only, which, by logical and practical application and utilisation, have yielded actual, tangible results and successes. Some of these theories are most extravagantly glorified, beyond all measure, in certain circles; but despite all glorification they lack the one and all-important crowning triumph, viz., positive, palpable, provable universal success, not in theory, but in practice.

CHAPTER II

THE FUNDAMENTAL PRINCIPLES OF A RATIONAL ANTITOXIC NATURAL METHOD OF CURE

We SHOULD like to have been able to spare the reader the trouble of perusing the first lengthy chapter, or have asked him to skip it as a tedious theoretical introduction, had it not been for the important fact that the theories regarding the nature of disease, therein expounded, form an indispensable sub-structure for the entire composition of a rational therapy. This sub-structure is all the more important, as the present volume endeavours and intends to train and instruct the reader in the art of self-treatment or self-help.

We must repeat that, setting aside accidents and mechanical injuries, all derangements of our organism, and all diseases can be reduced to two fundamental causes: (1) *under-nutrition and* (2) *disorders brought about by foreign substances, in the broadest sense of the word.*

Let us draw a very trivial comparison by comparing our organism with the mechanism of a watch. If I drop the watch or otherwise roughly handle it, *i.e.*, injure it, its normal working and running is prone to be interfered with. On the other hand, it will stop if I do not wind it up in good time, which amounts to the same thing as under-nutrition of our organism. But it will also be hampered in its regularity if a foreign body, a grain of sand or dust, gets among its wheels. This last disturbing process is for our purpose the most important point of comparison.

The definition of this disturbing process in our human organism is the most serious, and at the same time the most difficult task. According to the latest and most reliable researches—reliable because confirmed by experience and experiments—the foreign elements, upsetting our bodily equilibrium, can be divided into two main groups. The first group comprises the micro-organisms and bacilli as the causators of the so-called infectious diseases; the second stands for uric acid or the before-mentioned blood-poisons as the material vehicles of all other disease processes. This classification gives us a palpable foundation for all diseases.

If these premises be correct, they immediately indicate the correct course of treatment to be pursued, and should the latter prove successful, this inversely again confirms the correctness of our conception of the nature of disease. The only apposite method of cure thus consists in combating the foreign bodies, *i.e.*, the blood-poisons, inasmuch as the blood constitutes the one and only mediator of the vital processes.

If the acceptation of the term "foreign bodies" be a comprehensive one, including all those elements which tend to interfere with the normal metabolic process of our organism, it will at once become evident that any drug or medicine-poison which does not adapt itself to this metabolic process must of necessity be included in the category of foreign bodies, or, indeed, blood-poisons.

Be the immediate or spontaneous action of a drug what it may, it will ever and anon injure the organism as a foreign body, and at best "will the devil be driven out by Beelzebub." This applies above all to those preparations which are composed of chemicals, *i.e.*, inorganic ingredients, which are not assimilated by the blood, *i.e.*, are not metabolised. They act as direct poisons on the blood until they are again expelled.

This simple fact reveals the incalculable harm done to humanity by quacks and druggists. Worse than all auto-intoxication, or self-poisoning through injudicious habits of living, is the poisoning of humanity by the official representatives of "Science," because these drug-poisons have undoubtedly added to the already existing blood-poisons, and the poor patients "fall out of the frying-pan into the fire!" Moreover, the recklessness and want of judgment with which these medicinal poisons have been, and are still, administered strike us as simply incredible. Numberless people are yearly ruined through this wantonness! We need only think of the pernicious effect of mercury, iron, bromide, iodine, salicin, &c. With reference to creosote, for instance, Dr. Paczkowski cogently remarks: "If one had the opportunity of asking all the consumptives in the world with what they had been, or were being, treated, we doubtlessly would receive the unanimous answer: with creosote.

"In fact one cannot help feeling surprised why this particular 'remedy' should be clung to so tenaciously. I question whether among a hundred thousand physicians we could find a single one who would or could conscientiously state that he had *cured* one consumptive patient with creosote. And still it is being employed! Why so?—it will be difficult to conceive!

"What applies to this agent applies with equal force to all other technically manufactured compounds: they leave the body unchanged and in the same state as they entered it, but not without leaving behind them deleterious after-effects on the stomach and intestines."

Every rational method of cure must, therefore, condemn at the outset all noxious drugs and medicine-poisons whatsoever, with rigid consequentness, simply because, instead of ameliorating the evil, they, on the contrary, aggravate it and add to the quantity of blood-poisons. Many, aye most patients, are trapped and bribed into their use by a momentary local or symptomatic success. Certain powders, such as antipyrin, phenacetin, &c., &c., may bring momentary relief and abatement of, or freedom from, pain, say in the case of a headache or megrims, but the powder in reality only increases the amount of blood-poisons, which cause the megrims, and consequently the latter reappear, but—in a worse form. A *rational* method of cure will go to the root of the evil, abstaining from momentarily subduing the pain by means of anæsthetics or other "painkillers," and attend to the elimination of the uric acid which *caused* the attack of the megrims.

The motto of a rational method of cure can only be: *Combat the blood-poisons and combat the collæmia.* This can only be done by preventing the introduction of the blood-poisons, on the one hand, and by eliminating such blood-poisons as may already vitiate the system, on the other. Practically all our ailments can be reduced to auto-intoxication pure and simple. This motto or maxim is no mere phrase; it embodies, moreover, a profound fundamental truth which is supported by our entire modern knowledge.

We have already pointed out that our organism is the miracle of all miracles, and that we shall ever vainly strive to fathom the depths of its primary actuating forces. Every educated person who is somewhat conversant with physiology and biology, will be resignedly convinced that humanity will never solve the riddles of life, because our very organs of sense are too coarse and blunt ever to grasp the atomistic happenings in the organic life-processes. Even the most powerful microscopes only reveal to us processes which already involve huge complexes of atoms in their co-operative reciprocity, and what we can apprehend of the latter is but the ultimatum of the workings of subtle forces and processes a million times entwined and involved. What unforeboded, undreamt-of wonders would be disclosed to us, could we, with more refined sense-organs, again and again dissect, dismember and anatomise the details and marvels exhibited under the microscope!

Every physiologist knows perfectly well that we know absolutely nothing about the actual functions and building-up of a simple cell, and we can see under the microscope nothing but its external form, or at best we may divine its purpose, but as regards the processes working in the interior of the cell during these functions, or, indeed, its process of evolution and development, we have not a shadow of a notion, and must avow absolute ignorance. Likewise are we in the dark as regards the way, or according to what laws, these cells group themselves into tissues, organs, and finally the entire organism. We do not know it, and must resign to the fact that we never shall know it. We can only surmise that the cell-life, which lies at the base of all organisms, is subject to certain laws, for modern natural science has at least demonstrated this lawfulness in innumerable cases, so much so that we cannot but accept it for all life-processes, even if we be unable to explore their ultimate inmost propelling forces.

We must thus assume that not only every cell develops according to fixed laws, but also every higher grouping of cells into tissues or organs. We, as scientifically trained modern men, are convinced that every bone, every muscular or nervous fibre, is built up on strictly lawful lines, even if we have no cognisance whatever of the actual building-up *process*. The countless observations in biology and physiology, likewise, leave us no room for doubt that every tissue and every organ (and nothing but organs compose an organism) has the desire to maintain and preserve its existence and functional activity, and this apparently also only according to strict, lawful principles, which latter again lie beyond the range of our knowledge. Indeed it has been observed that in some of the lower animals, particularly among the crustaceæ, lost organs and limbs are completely replaced by new ones for the benefit of the whole organism.

Now, if this immutable lawfulness imbues every *organism* with the instinct of self-preservation for *its entirety* in such a wonderful manner, it is but a logical deduction to assume a similarly lawful instinct of self-preservation in *every single organ! Nature* (we use this term since science has not yet furnished us with a better one), or, as regards the organic world, the life-principle which creates cells, tissues and organs, moreover in such a masterly manner that our inferior intellect hardly suffices to grasp and properly appreciate this master-work, will undoubtedly also be capable (with equal ingenuity) of repairing any damage that may occur to a cell, tissue, or organ.

This we can put to the test every day in the week. Just let us reflect how blindly, nay idiotically, most people rage against their health; how they make exorbitant demands upon their organism; how they overload it with excessive quantities of unwholesome trash during innumerable eating and drinking debauches from year to year; how they over-irritate the most sensitive and important organs with poisons and stimulants; how they ruin their nervous system with almost systematic stubbornness—and still for years Nature —*i.e.*, the self-preservative, self-repairing, self-healing power of the organs—withstands all these terrible assaults and outrages until finally all Her healing power and last resources are exhausted and drained to the very dregs, and she succumbs. And when all-powerful and omnipotent Nature eventually breaks down under the insane strain put upon Her and disease and marasmus set in, then these folk rush to the doctor or chemist who himself knows absolutely nothing about the life or preservative principle controlling the tissues and organs, but is expected to at once set up Nature again by dint of some drug or ointment! Does this not put every physician of the old school to the blush? We may ridicule and laugh at the Chinese "doctors" when they prescribe ground tiger's or lion's claws for their patients by way of a tonic, but our European prescriptions, in view of the above arguments, are really upon the same par, perhaps even worse, inasmuch as the Chinese tonic may act through mediums of suggestion and do some good, while it can hardly do any harm!

The reparative and healing art of Nature manifests itself at all times. A simple wound of a cut will show this healing art. No educated person will commit himself to assert that the doctor or his plaster heals the wound. The wound heals of its own accord; every tissue tries to preserve itself. The tissue of the skin endeavours, with its inherent lawfulness, to repair the damage and raise the functional capability of the skin to its normal level. According to what principle and by what means the tissues repair such damage, no one knows, and the doctor who would have his patient believe that his ointments or plasters heal the wound is a dissembler, or at least as ignorant as his credulous patient. A doctor, who rightly deserves the title, will leave the wound to the healing power of Nature, taking care all the while to keep the wound clean, *i.e.*, not to hinder Nature's healing process; hence our motto: "*Natura sanat medicus curat.*"

What applies to the skin will, by analogy, also apply to the injuries of every other organ or tissue, even if not immediately observable.

Let us abide by this example in order to make our task quite clear. As regards the skin as an organ, we know, roughly outlined, its functions principally as an excretory organ. Thereby, however, no evidence is given of its inmost nature, of the actual processes which come into play during its activity. The life-principle which keeps the skin as a tissue healthy and active, and also repairs and heals any injury inflicted upon it, is, and will be, absolutely out of our ken until we have solved the very riddles of life themselves. Only the most blatant ignorance could conceive that it lie in our power to effect the reparation of the inflicted injury. This can only be done by Nature, *i.e.*, the life and creative principle inherent to the skin-tissue. This is an irrefutable fact which brooks no contradiction, no matter how much we may pride ourselves on our "human wisdom."

Still, our wisdom may assert itself at one point where, indeed, it becomes the wisdom proper of the physician. Although we know nothing whatsoever about the life-principle underlying the healing process of the injury, instanced above, yet science has furnished us with one important fact, namely, that no matter how and by what processes the life-principle inherent to the skin-tissue may effect the healing of the cut, it draws solely upon the blood for the material requisite thereto. The blood in itself is liquid tissue, and only in the blood can we find the building-up and preserving material for all tissues and organs. The life-principle of the skin-tissue cannot work any miracles—it is bound to natural laws. The conviction is, therefore, forced upon us with logical consequentness—and experience confirms it—that the condition of the blood furnishes the basis upon which the life-principle of the skin-tissue is enabled to accomplish its healing process.

If, on the one hand, the blood contain all the material necessary for rebuilding the destroyed skin-tissue, and if, on the other, it be not overcharged with poisonous substances, which as foreign bodies impede the metabolic process in building up the injured skin-tissue, then the healing of the wound will progress favourably and normally. Daily experience teaches us that the healthy blood quickly heals a wound, whereas the healing is protracted, often with morbid complications, when the blood is in a bad condition. Like the skin, all other tissues and organs rely upon the blood for sustenance, and their vitality and health will ever depend on its condition.

If there be a human or medical "art" which can further our bodily welfare, it can only be such a one as can assist the healing art of Nature through the medium of influencing the blood-condition. And, indeed, we have the power of influencing the blood. To exercise this power for the good of humanity should be the highest and noblest duty of medical science, for only thereby does the latter justify and merit its name, because medical "science" in the old acceptation of the term, is a mere mockery upon common sense, and is, indeed, devoid of any scientific element.

In view of the all-importance of the blood condition, and our power of controlling it to a certain degree, the importance and merits of Dr. Haig's discoveries at once become apparent. But, as we have said before, we must always remain cool and moderate in our judgment, and must never be carried away into one-sided and dogmatic exaggerations and extravagances where our health and happiness is concerned. We shall see that while giving Dr. Haig's great discoveries their just dues, we must, nevertheless, not lose sight of the fact that they by no means suffice us to reach our goal; but that the discoveries of Drs. Lahmann, Cantani, &c., delineated in the first chapter, are no less deserving of attention and consideration, and are indeed indispensable in working out a practical and usable method of cure. For we shall find that not one of those theories taken alone will prove sufficient to meet the requirements of all forms and cases of disease, but that, moreover, only a combination of all the theories can render this possible, and at the same time we must also give due consideration to all the useful material which scientific research has placed at our disposal from time to time.

CHAPTER III

THE ANTI-TOXIC BLOOD REGENERATION ACCORDING TO DR. HAIG

IN submitting in the following pages to the gentle reader Dr. Haig's dietary—based on the experiments and experience of many years—as an effective and reliable weapon for *preventing* collæmia, as the prime cause of all diseases, we must in the first instance draw attention to the glaring difference between Haig's treatment and the so-called physico-dietetic methods of cure, which latter have of late found such a large number of enthusiastic followers among physicians and sanatoria, as well as among the lay public. These (latter) methods, however, constitute, in reality, nothing but a counter-effort against the antiquated drug and medicine delusion. It has at last dawned upon the more enlightened and progressive section of the medical faculty that the day of the old-fashioned drug-mania is drawing to a close, because the public itself is beginning to open its eyes and protest against medical and professional backwardness more and more every day. But all those dietetic methods of cure lack the support of positive knowledge and philosophical perception; there is the same "groping about" and "trying on" as there was formerly with the medicaments. Fattening-cures, hunger-cures, milk-cures, vegetarianism, "physical culture," hypnotic treatment, &c., take each other's places in planless disorder, and all arguments which are brought forth in their favour lend but feeble and half-hearted support.

Not so with Haig's dietetic system, which is, indeed, systematically built up on a well-defined, preconceived theory as regards the nature of disease; it has been thoroughly tested and every food-stuff has been carefully selected and appointed to fulfil an especial task. It is not a dietary composed planlessly and at random, but in the full consciousness of a fixed and precise purpose. These same remarks, as we shall see, apply equally forcibly to Drs. Cantani and Lahmann.

If collæmia be the fundamental cause of all ailments and diseases, it should follow that Haig's diet should also be the radical means of combating all diseases, inasmuch as it aims at removing the collæmia, no matter whether it is a question of disease of the stomach, bowels, kidneys, liver, lungs, heart, nervous system, bones and cartilages, reproductive organs or the morbid psycho-mental states such as neurasthenia hysteria, sexual neurasthenia, insanity, &c.—they are equally conditioned by the collæmia, and Haig's diet aims at curing them all. It is immaterial whether the diseased state be brought on by animate or inanimate blood-poisons, because the microbes depend upon the collæmic blood for nutriment.

Haig of course can work miracles no more than any other human being. The prevention of collæmia, as has been stated, is also the best means of guarding the blood against the infection with microbes. But when the blood is already infected to such a degree that a crisis manifests itself in the dangerous form of a serious disease or attack such as diphtheria, influenza, scarlet fever, consumption, &c., then even Haig's diet, like any other remedy, may come too late. Haig's diet is unquestionably the best prophylactic measure against contagion, but, be the blood once vitiated, it will entirely depend upon the degree of the infection in how far Haig's or any other diet may yet prove helpful. And even then a dietetic regimen may be preferable to the administration of medicaments, although we do not wish to encroach upon the legitimate preserves of the gentle reader's medical adviser in such a case.

Haig's diet is the one firm pillar in modern therapeutics by virtue of its preventing the blood from becoming overloaded with blood poisons. This fact alone suffices to raise it high above all other methods of cure, the best and most rational of which but tend to free the blood from poisonous substances while, on account of a faulty dietary, they allow an uninterrupted reintroduction of fresh poisons into the system from day to day and hour to hour. While admitting that massage, hydrotherapy, compresses, electrical treatments, light, air and sun baths, Kneipp-cures, &c., favourably influence the blood circulation and activity of the skin principally, we must not overlook the fact that they only shift or move the morbid accumulations in the system but do not prevent the introduction of unwholesome matter; in fact these methods merely perform work similar to that of old Sisyphus of mythological renown.

(a) The Experiment of the Capillary Reflux of the Blood

(ASCERTAINING THE PRESENCE OF BLOOD-POISONS IN THE SYSTEM)

If the condition of the blood and the blood circulation dependent thereupon determine our state of health, a test as to the condition of the blood would at once reveal the latter to every one. In this respect we can draw some conclusions from the excretions (sweat, urine, &c.) of the body. The kidneys are one of the most important excretory organs, and the poisons vitiating the blood are easily recognised and ascertained in the urine. Dr. Haig has always made his observations of excessive uric acidity by the urine. The examination of the urine, however, is rather a difficult and circumstantial affair, and can only be made thoroughly by a chemist. Blue litmus-paper, *e.g.*, steeped in the urine, will easily show whether the reaction be acid, by turning red. But this does not offer us a clue for establishing the degree or quantity of uric acid in the blood, which is the very thing we would know. Dr. Haig has proposed a very simple and at the same time most reliable method for ascertaining the quantity of blood-poisons in the system, which any layman can employ for self-observation: Press with the finger-tip of the one hand on the back of the other, held out horizontally, for about 6 seconds. After the finger has been removed the resultant white spot should disappear within the same time, or while you can count up to 6, the skin resuming its normal colour.

The purpose of this experiment is obvious. The mechanical pressure forces the blood out of the capillaries of the skin, and the rapidity with which the blood flows back into the vessels after the pressure has been suspended indicates the blood-tension, *i.e.*, the quickness of the circulation. In healthy individuals the capillary reflux should be accomplished as described above. As soon as this time limit be exceeded, when we can count from 6 upwards to 8 or even 10, the circulation of the blood is poor, and the higher we can count, the larger the quantity of blood-poisons in the circulation and system. The experiment is infallible, and to make it still more convincing one may compare the capillary reflux of healthier individuals with one's own. Even healthy people should at odd times make this test on themselves, because the blood often becomes overcharged but gradually, and an acute outbreak of a disease may occur suddenly. Healthy individuals can forestall such an outbreak by watching the circulation in the manner indicated above.

In order to make the experiment convincing and accurate, certain well-defined conditions and stipulations must be fulfilled. It should not be made directly after meals, or after some mental or physical strain. The hour most suitable for the experiment is about 11 a.m.; the temperature of the room should be normal, neither too warm nor too cold, and the subject should be in a composed frame of mind. The circulation in a cold hand and during fatigue is considerably retarded, while after meals it is accelerated.

Exhaustion can always be demonstrated by the capillary reflux, also the general state of health, or, during an illness, the seriousness of the complaint.

Frequent reference to this experiment will be made in the subsequent pages.

(b) Dr. Haig's Dietetic Precepts

Dr. Haig says[1]: "It matters little to those who suffer whether the poison in the blood is uric acid or xanthine, but it matters everything to them if, by altering their diet and getting their nitrogen from one source rather than from another, they can free their blood of the poison, and themselves of the diseases it produces.

"Many volumes of theory did not suffice to prevent my headaches, but, once I found out that they were due to poisoning by meat and tea, prevention became both certain and simple, and relapse is now a mathematical certainty if these poisons are again taken in any form.

"The diet treatment of diseases is the keeping the body and blood free from an excess of uric acid, and we have now to consider the way in which this can be done.

"Now uric acid is met with in excess in the body and blood chiefly, as we have seen, from three causes: (1) that it has been introduced in excess by the consumption of articles of food such as meat, eggs, fish, pulses, mushrooms, asparagus, tea, coffee, cocoa, and guarana, which contain it or other members of the xanthine group equivalent to it; or (2) because so much nitrogen is taken that the uric acid formed out of it in the relation to urea of about 1–35 is, owing to the high acidity which the salts and other products of nitrogenous metabolism produce, not all excreted, and a store is gradually formed in the body to the extent possibly of from 52–400 grains[1] (about 14–30 grammes) in a year; (3) the high acidity which results from the taking of much animal food prevents the excretion of the uric acid introduced with this animal food, as well as of that which is formed out of its nitrogen along with a certain quantity of urea. In a word, animal food increases the introduction and formation of uric acid, and at the same time prevents its elimination, and the alkaloids of tea, coffee, or cocoa, and certain similar vegetable products, *e.g.*, those contained in the pulses, act in the same way.

---

[1] *Loc. cit.*, page 825 e.a.

"As regards diet, we have, then, two things to do to attain our object. We must cut off all food which contains much uric acid, and which is not absolutely necessary, and we must not take more nitrogen than is necessary to keep urea at the physiological level of 3–5 grs. per pound of body weight per day, or 3.0 per pound for sedentary adults of middle age.

"With regard to cutting off we may, I think, at once forbid tea, coffee, and cocoa, or permit them only in the smallest possible quantities as flavourings. We may cut off such animal food as contains much uric acid, and give only as much of the less harmful kinds as is necessary for nutrition.

"When, for instance, a person is on a practically constant diet, and is watching his uric acid and uric excretion from day to day, if the taking of a known quantity of some substance, such as fish or meat, always, without exception, increases the excretion of uric acid out of proportion to urea, such substance probably contains some uric acid which it introduces into the blood, and should consequently be as far as possible avoided.

---

[1] In Dr. Haig's *exposé*, the weights are given in grains not grammes, as otherwise in this work. Grs., thus, stands for grains in this Chapter.

"Such a physiological test is much more valuable than any mere estimation of the xanthines contained in meat can possibly be, for what we want to know is the effect of these substances on the living human body. In eggs, for instance, I have been unable to find any uric acid or other members of the xanthine group, such as I have found in meat, and yet their steady and graduated administration invariably brings about a large rise in the excretion of uric acid, and all the evil effects of its passage through the blood, so that I have had to exclude them entirely from my diet.

"My experience leads me to answer the question of the quantity of animal food necessary for nutrition as follows :—

"No animal food at all is necessary, for the whole of the required nitrogen can be got from the vegetable kingdom, but as milk and cheese appear to have no power of increasing the excretion of uric acid, they may, if necessary, be used along with the vegetable foods.

"As to the quantity of nitrogenous food required, my experience leads me to believe that the allowance given in most works on physiology of 3·5 grs. of urea per pound of body weight per day, is very close to the mark for a healthy and active adult man.

"Children may require nearly three times as much, as they have to grow as well as to keep up nutrition; sedentary adults require less, and those who are old as well as sedentary much less.

"Urea multiplied by three equals roughly the albumen required to produce it; if the weight is known, it is easy to calculate approximately the quantities of the various food substances that will have to be taken by any given person.

"Such a calculation should, however, only be used as a rough guide; as appetite on the one hand, and nutrition, the blood decimal, strength and power of endurance on the other, are the most certain indications of the necessary quantity and quality.

"The rule then for an active adult is—find the body weight in pounds; if there is much adipose tissue, deduct it, *i.e.*, take the weight of the individual before he began to get stout, multiply by 3·5 and the resultant by 3, and you will have the amount of albumen in grains that he will have to consume each day. Thus a man of 140 lbs. × 3·5 = 490 × 3 = 1,470 grs., the amount of albumen to be taken by him each day.

"He must leave out all meat, fish, fowl, game and eggs, which contain say 20 to 25 per cent. of albumen, and replace them by—

Milk	containing	3–4	p.c.	of albumen
Cheese	„	33	„	„
Bread	„	8	„	„
Cereal foods	„	5–12	„	„
Nuts or almonds.........	„	15–25	„	„
Dried fruits	„	2–3	„	„

"He may also have garden vegetables, but those often contain mere fractions of a per cent. of albumen, or garden fruit, containing from ·5 up to 1·0 or 1·5 per cent. of albumen only.

"So our man would have to take, in order to get his 1,470 grs. of albumen—

14 oz. bread	(= 8 p.c.[1]	of albumen	476	grs.	of albumen
2 oz. rice	(= 5 „	„	 43	„	„
2 pints milk	(= 3 „	„	525	„	„
2 oz. cheese	(=33 „	„	281	„	„
		Total............	1,325		

and the remaining 145 grains will probably be made up out of cereal or other vegetable products he takes as puddings, and out of the garden vegetables and fruits ordinarily consumed.

"Now many modifications of this diet are possible, and the best plan is, I think, for each individual to take that which suits his own taste. Some do very well on bread and cheese principally; others prefer milk to everything else and make it their chief food; sufferers from obesity should skim the milk or dispense with it altogether.

"For my part I regard a diet consisting chiefly of breadstuffs and cereal foods as having more advantages than any other, and this was the diet on which the athletes of Greece and Rome performed their feats.

---

[1] This percentage stands for the dry food-stuff before cooking; in the diet lists further on the admixture of water is included, which naturally reduces the percentage considerably.

" When appetite is very good, which generally means when exercise and fresh air are plentiful, the quantities of the more nourishing foods should be diminished, because their place is taken by the increased quantity of fruits and vegetables than naturally consumed, and conversely when appetite is poor, milk, cheese, and bread may have to be increased, because less of the other things are taken.

" If these points are not attended to, we may get either too much nitrogen (urea and uric acid) or too little with general debility and asthenia. But there exist some difficulties in carrying out this dietary which are chiefly the expression of our prevailing mode of living. In consequence of gradually acquired habits the consumption of a sufficient amount of bread was in time replaced by excessive meat-eating, the stimulating effect of which has become most detrimental; and these habits have affected the preparation and cooking of our food in general, so much so that our bread-stuffs and cereal foods are not as numerous, not as well cooked, not as pure and nutritious as they should be; whereas our animal foods are numerous, carefully and richly prepared, always attracting our attention and more popular than they should be.

" Habits, however, cannot be changed in a day, and some who would change everything at a minute's notice, will often find that they grow worse, instead of improving, in their alimentation.

" This is, indeed, a great obstacle ; but facing it bravely, we will find that it is not unsurmountable, for it is possible, step by step, to go back the same way we came; thus (with the exception of a few persons whose habits have become second nature to them) we will gradually, with care and circumspection, reach our goal.

"At first the consumption of bread-stuffs, cereals, nuts and dishes prepared from them is gradually increased; after having re-acquired the habit of eating these, animal foods may be reduced and finally abandoned. As in all other things, so here, too, one must first learn how to walk before one can begin to run; as a rule I give the advice to change, at the start, only one meal per diem, and to allow some time to lapse before altering the diet completely."

Haig gives the following bill of fare as providing sufficient nourishment for a male adult, and enabling any excess of uric acid to be avoided:—

Breakfast

Bread and toast	3	oz.
Butter	2	„
Porridge, mixed with butter and salt	8¼	„
Jam	1½	„
Milk, including that taken with porridge	1	pint

Lunch

Soup (containing vegetables, milk, and butter)	10	oz.
Bread	2¾	„
Rice as cooked	3	„
Butter	2	„
Bread and butter pudding	4¼	„
Cheese	1¼	„
Milk	6	„
Fruit	2	„

Afternoon tea

Bread and butter sandwiches containing mustard and cress, cucumber, tomato, or other vegetables	3	oz.
Milk, warm in winter, cold in summer	4	„

Supper

Savoury rice or macaroni cheese	3	oz.
Scones	2½	„
Butter	2	„
Rice pudding	4½	„
Fruit	5	„
Sugar with fruit	2	„
Milk	6–10	„

This will add up as about:—

Bread	11½	oz.
Porridge, rice, and pudding as cooked	18	„
Butter	7	„
Milk	40	„
Cheese	2	„
With jam, sugar, potatoes and fruit in addition about...	21½	„
	100	oz.[1]

Haig further remarks: "There are some who tell us that they cannot digest milk, or that they find it very constipating; as to digestion, I think there are very few indeed who cannot digest a fair quantity, if it is taken mixed with other things, as porridge or pudding, while hardly any one would be free from discomfort who drank a quart of it by itself. As regards constipation, hardly any food will prove more constipating than meat, and without doubt milk will aggravate the evil if taken alongside of meat; but with a diet like mine as described above, such an amount of intestinal waste matter, which reacts on the digestive organs, is furnished, that constipation will occur but very rarely, and consumption of a moderate amount of milk will not suffice to produce it.

---

[1] We consider this quantity enormous and shall refer to it further on.

"Some of those who have been in the habit of eating much animal food and but little bread and starchy foods, may have trouble with these latter when they begin to alter their diet. This trouble comes chiefly in the form of discomfort, distension, or flatulent dyspepsia, and is largely due to the fact that bread and starch foods cannot be bolted, as flesh can be, with little mastication and without being mixed with saliva; bread and starch thus treated are apt to digest very slowly, and may begin to ferment in the process.

"The remedy is quite simple; put the bread and starch foods dry into the mouth, so that the saliva can mix with them easily, and eat them slowly and chew them well. . . . Another rule for those who suffer from similar dyspepsia, is never to drink when not thirsty. As a rule such people can manage two pints of milk in one day without having dyspepsia from too much fluid; but in cold weather, and when sedentary, even that may be too much, and the milk may have to be reduced to about 1½ pints per day, the breadstuffs and cheese being increased to replace it."

Much as we may admire Dr. Haig's theories, we must nevertheless guard against being swayed into biassed partiality, particularly so because it is not our object to expound and champion one circumscribed theory, but, moreover, to essay a practical utilisation of the achievements of the *entire* modern scientific research. Credit is chiefly due to Dr. Haig for establishing a diet which prevents the formation of blood-poisons. But, obviously, we have to go farther than that; we must also insist upon the energetic excretion and elimination of the poisons already present in the blood, which very frequently yield less readily, and are more stubbornly "fixed" than would appear on the face of Dr. Haig's exposition, and for which his diet alone is not sufficiently potent. It must also be remembered that, especially in regard to milk and cheese, as the most important providers of albumen, opinions differ widely. Cantani, particularly, is diametrically opposed to Haig in this respect, as will be shown more fully in the next Chapter. It must also be admitted that Haig, generally speaking, is not quite up to date in his theory of nutrition. He puts too much emphasis on the albuminous bodies and neglects the fatty substances, and particularly the carbo-hydrates as energy producers, the unquestionable importance of which has been satisfactorily established by the latest researches.

Moreover, Dr. Lahmann's delineations have shown us the importance of the nutritive salts in the economy of our organism, of which fact Dr. Haig does not seem to be aware. Thus, in order to avoid the indictment of one-sidedness, we must certainly assign the nutritive salts their rightful place in the establishment of a standard natural method of cure.

As already pointed out the quantities given in Dr. Haig's diet-list, as cited above, are undoubtedly too large. These enormous quantities put a strain on the digestion which the stomach cannot possibly support in the long run. Haig very likely arrived at these excessive quantities because he will insist upon the supply of 96 grams of albumen for the daily nutrition, and chiefly relies upon vegetable foods to yield this amount, moreover rendering this process more difficult by excluding the legumes and pulse. This, in effect, is one of the drawbacks of vegetarianism generally. The quantities of vegetable food capable of furnishing the amount of albumen requisite for the proper nutrition of the body are too large and beyond the power of the system to deal with. Haig, therefore, relies upon the assistance of milk, and principally cheese, both of which articles, however—as we shall see—are of a particularly questionable nature as regards the production of uric acid. Cantani, at least, rejects them most emphatically.

We quite agree with Dr. Lahmann's contention that a standard food mixture of about 2,500 grms. (*vide* page 29) is quite sufficient, allowing about 700 grms. for solid matter and 1,800 grms. for fluids. Haig, however, according to his diet-list, demands about 1,270 grms. of solids, and about 1,670 grms. of liquids! Whoever wishes to live according to Haig's diet should, therefore, modify the diet-list as regards the quantities of solid food-stuffs and reduce the large amounts of bread, rice-pudding, &c., substituting rather a little more cheese in order to gain the requisite amount of albumen.

The actually required amount of nutriment will have to be the subject of further investigation.

We cannot help thinking that Haig's diet will prove rather impracticable for everyday use, and its effects are so slow that it will take about two years, as Haig himself admits, before the system becomes free from uric acid. Very few people will have the patience to restrict themselves for all that time, and will certainly prefer a dietary which shows quicker results and has the advantage of being more palatable. Such will be found in the four graduated diet-lists proposed in our present effort. For those, however, who insist upon a new vegetarian diet, Haig's dietetic regimen should prove beneficial.

CHAPTER IV

THE ANTI-TOXIC BLOOD REGENERATION ACCORDING TO DR. CANTANI

In analysing Dr. Cantani's principles of alimentary hygiene we are at once struck by their glaring contradiction to Dr. Haig's. Nevertheless Cantani's principles can boast of successes equally as conspicuous as Haig's, and his logic is just as forceful and not less convincing. We must therefore, endeavour to sift and reconcile the conflicting theories.

Cantani, as we have above remarked, directed his attention chiefly to the treatment of gout, rheumatism, oxaluria, gravel, diabetes, &c., and was rewarded by the most signal, and hitherto unattained, degree of success. Considering that uric acid plays the most important part in these particular diseases, his arguments naturally command particular consideration and are for our purpose of far-reaching consequence.

While Haig's chief object consists in the prevention of the introduction of blood-poisons through the food, Cantani, in addition to these prophylactic measures, insists upon a careful surveillance of the entire metabolic process. Cantani concentrates his whole knowledge on the elimination of the blood-poisons through the metabolic change, *i.e.*, by means of higher oxidation and complete combustion. We have, thus, in Dr. Cantani, another staunch supporter of the anti-toxic natural method of cure, according to our conception of the nature of disease, and we have good reason to appreciate his principles at their highest valuation.

Contrary to Haig, Cantani assumes a hereditary predisposition in addition to the ordinary causes of gout, and daily experience confirms his contention. In the following we will endeavour to elucidate Cantani's view more exhaustively by partly interpreting his own words and partly by borrowing from the treatise, already referred to, viz., " Perpetual Health."

The excess of uric acid is primarily attributable to the disproportion existing between the nutriments admitted into, and the work accomplished by, the system; an excessive amount of uric acid will develop whenever the body receives more matter than it can utilise. Ever since remote antiquity this lack of proportion between nutrition and organic consumption has been described by physicians as the cause of gout, and it has been the preponderating opinion that gout arose from too liberal a supply of albuminates, or, to put it more correctly, from nitrogen-holding substances generally (including gluten and proteids). The lay public, too, has recognised these facts, and it is here a case of "*vox populi vox dei.*"

The overloading of the body with food results in too great a strain being imposed upon its powers of combustion or oxidation; these powers are inadequate to cope with all the matter received; part only of the nitrogenous substances (proportionate to the power actually expended) is burnt up; while the rest comes to a standstill, as it were, at a stage antecedent to that of urea, viz., the stage of uric acid.

It is chiefly the retarded metabolism which encourages the excessive production of uric acid and the attacks of gout generally, and the cause of this retardation must be sought in the idiosyncrasy of the subject. Whereas the organism of the healthy individual works, as regards his metabolism, on strictly defined principles, the organism of the gouty subject is subject to totally different conditions. Similar to two steam engines gauged at 100 and 400 h.p. respectively, being constructed on different principles, so also of two human bodies—considered as producers of chemical substances—the one will be fit to consume a lot, acquiring neither fat nor gout, having no tendency to deposit fat or uric acid or uric acid salts in the tissues; while the other, in consequence of its "construction," is inclined to be slack in its metabolic operations, consuming little, economising on little, having a proneness to fatty and uric acid depositions, even on a relatively meagre fare, leading to obesity or gout, or perchance even both. The gouty taint or predisposition is clearly shown by heredity, seeing that the offspring of a non-gouty stock may with impunity eat more and work less than the children of gouty parents. The son of a gouty family, even if he eat moderately and work hard, will easily fall a victim to gout.

The question now arises under what influences and conditions do the albuminates in certain individuals—either hereditarily predisposed to gout or simply disposed to the disease through the injudicious daily abuse of food—yield more uric acid, thus facilitating the advent of the gouty attack?

Certain foods and drinks, it should be stated at the outset, decidedly favour the development of gout. It has been observed that a liberal consumption of milk, mealy food, and especially cheese, has a peculiarly injurious effect upon gouty subjects.

This observation is at variance with Garrod's and many other English authors', who put gouty subjects on an almost exclusive milk-diet. This diet—for certain reasons to be further investigated anon—will be supported by a *few single* patients, or at least it will do them no such eminent harm that evidence of its conspicuously injurious influence could readily be adduced. In very many cases, however, its deleterious effects will become clearly manifest.

"I will confine myself to citing the cases of only two patients under my supervision. In the first case I put my patient on a carefully prescribed moderate meat and vegetable diet with the gratifying result that he was free from attacks of gout for over a year, while after an exclusive milk-diet of a fortnight's duration only (ordered him by another physician for the cure of gonorrhœa) a violent attack of gout seized him which did not abate until he had returned to my diet of meat and vegetables exclusively. My second patient, in order to rid himself of a bronchial catarrh took the advice of a friend and for some time drank a copious supply of warm milk. The consequence was a very bad and stubborn attack of gout, of which, on a different diet, he had been free for thirty months. Many more similar cases could be cited where gout, after having been in abeyance for a long time, was stirred into painful activity by the consumption of milk and milk foods" (Cantani).

To wit, the same Dr. Garrod, who recommends milk for gouty subjects, admits that *occasionally* it is *very injurious* and dangerous, particularly to old people! Sydenham avers that an absolute milk diet is beneficial to gouty individuals as long as it is in use, but that the gouty attacks, after abandoning the treatment, reappear in an aggravated form and grow more violent than before.

Sydenham's views coincide somewhat with Cantani's contention that the beneficial action of a strict milk diet could be, at best, but a passing and transitory one; and he (Cantani) accounts for it by referring to the fact that milk, if taken to the exclusion of any other nourishment, is certainly capable of curing an existing chronic gastric catarrh with an accompanying tendency to acid fermentation; but here the milk removes only *one* of the causes that are apt to induce an attack of gout.

The frequent recurrence of these attacks under the powerful influence of beer and certain wines is a matter of fact long since established beyond doubt; and a circumstance which, in this connection, calls for special notice, is that the effect produced upon gouty persons by those liquors is far more harmful than that of *spirits* proper. It is not, therefore, by the alcohol contained in those wines or ales that the mischief is wrought; it must be done by some other ingredient predominating in them. It is commonly known that the several wines, for instance, differ in their action very considerably. The dry white wines are, as a rule, far worse than the astringent, somewhat bitter, red wines.

Now, what milk-food of every description, beer, and wine —especially sour wine—have in common is the acid they contain, and the acidifying properties they possess. In cheese, beer, and wine some acid is, of course, present from the first; but additional acid develops in the process of digestion of, say, milk, or freshly made milk dishes; and when it is further considered that the agents which are most effective in counteracting the gouty habit and in averting attacks of gout are supplied by springs of alkaline mineral waters, that such, indeed, is the action of alkalies generally, one cannot but draw the obvious conclusion that *acid* is the most formidable enemy of persons afflicted with gout, and more dangerous to them than the alcohol proper which, after all, husbands the nitrogen in the animal economy.

That the acids promote an increased uric acid production in the organism is proved by Kühne, viz., that even small animals, whether carnivorous or herbivorous, whilst they feed on their mother's milk, yield up as large a proportion of uric acid with their urine as human beings; although full-grown animals which are either carnivorous or herbivorous *only*, show but slight, if any, trace of uric acid in their blood.

A further observation is that inactivity unmistakably exercises a great and most unfavourable influence upon uric acid production, and the development of gout. Laziness, which necessarily involves a diminution both in the supply of oxygen to the body and in its utilisation in the system, in the first place, results in a proportionately diminished absorption and defective oxidation of the albuminous bodies, and, in the second place, most certainly reduces also the amount of respiratory matter generally, which the system is capable of turning to good account, and more especially the quantity of sugar-containing substances that are used up in the muscles and throughout the organism. The metabolic process is thus lowered, complete oxidation interfered with, and the result must be the production of acids—in addition to those introduced into the system—and their retention in the organism, causing the several disorders referred to above.

Therapy.—The main object of a well-conducted treatment should be to influence the metabolism of the tissues, the abnormal alimentation of which forms the basis for the development of gout. After all we have said in reference to gout, the following conclusion is clearly indicated: *increase the utilisation of the albuminates in the organism, compel their complete oxidation and promote the healthy processes of waste and compensation in the body!*

Now,[1] it is highly interesting to follow Cantani's line of argument in dealing with the treatment and cure of gout. It being generally known that it was the albuminous bodies, first and foremost, which assisted the production of uric acid, and consequently the development of gout, it was generally believed—and is believed still—that gout may be most effectually resisted by withholding from the body all meat and nearly all animal food rich in albumen (with the only exception of milk—and it is milk that Cantani would eschew) and confining one's self to the exclusive administration of vegetables, fruit, and farinaceous food, not excepting sweets. Thus, because, in the case of gouty subjects albumen is oxidised incompletely, it was supposed that the formation of the products of such incomplete oxidation might be avoided simply by denying albumen all access to the system. But then without the aid of albuminous bodies it is absolutely impossible for the human organism to subsist; and Cantani, therefore, rightly remarks that this dietetic method, which is intended to avoid the production of uric acid and thereby to prevent gout, recalls to his mind the strange delusion of that renowned physician who, when one of his patients succumbed to exhaustion from repeated blood-letting, and when the autopsy showed the blood-vessels of the deceased to be quite empty, gloried, nevertheless, in the fact that by withdrawing the blood he had conquered the fever and inflammation.

---

[1] *Vide* "Perpetual Health," *loc. cit.*, page 22 e.a., 1st. ed.

Cantani himself is decidedly of opinion that instead of hindering the importation into the system of the albuminous bodies—which are perfectly indispensable aids to nutrition—the object to be pursued should rather be the better utilisation, the more profitable "working-up," and the more complete oxidation of the albuminates and albuminoids. So far from rejecting meat, he regards it as the food best suited and most beneficial to the gouty individual, because it renders it more easy—than do the fruits and farinaceous dishes generally prescribed—to calculate and determine the amount of albumen allowable in a given case of gout, since in those other food substances the proportion of albumen to the remaining constituents fluctuates far more than in flesh food.

It is, of course, the *quantity* of flesh-food taken that imperatively demands attention, for in no case should the supply exceed the requirements of the system. Where the amount of flesh consumed meets the demands of nutrition —and no more—it affords the important advantage that, with flesh-nutriment predominating, the system receives more oxygen than it can obtain from mealy food. Besides, where meat only, unmixed with any farinaceous substance or any sweets, is introduced into the system, such meat must at the same time provide for respiration—since in that case no more readily oxidisable matter is supplied, and for this reason the meat must surely reach the ultimate phase of utilisation and oxidation of the albuminates.

In opposition to all previous dietetic rules, therefore, Cantani advocates his exclusive flesh-diet, with which, indeed, he has attained results which are nothing less than marvellous. The fundamental idea which has induced him to devise this dietary and to reject all other kinds of food, is this: It is essential that, besides those substances and liquors which either themselves contain acids, or are of a nature to cause acidification, such as milk-foods, cheese, wine, beer, &c., all *oxygen-consuming* matter should be kept out of the system; and among substances of this class, carbo-hydrates and fat occupy the first rank; these being themselves excellent organic fuel, capable alike of producing heat and assisting respiration, use up the oxygen admitted into the body so that there remains no oxygen available for the combustion of the albumen, or for preventing acidification; so that in order to assure complete oxidation of the albuminous matter, and to obviate the immediate formation of acid in the organism, it is particularly important that gouty subjects should—for a time, at all events—abstain from taking farinaceous food such as bread, puddings, rice, potatoes, &c., or food containing sugar, as sweetmeats, jellies, and the like. The same applies to fruits, which also contain a greater or less proportion of sugar, in addition to fruit acid. In eating meat sufferers from gout should first carefully remove all the fat. It goes without saying that, strictly speaking, the abstention from mealy and sweet food, including fruits, need only be continued for a given period of time, say a few months, which will generally suffice to complete the reconstruction of the system and to impart a new direction to the nutritive and metabolic processes. But what should ever be borne in mind is that for the reasons just stated *people inclined to gout must take care to reduce the consumption of those kinds of food which, for certain periods, have to be vetoed altogether in their case, to an irreducible minimum during their whole lifetime.*

Gouty persons should further be forbidden to take spirituous liquors or any drinks containing caffeine; also pepper, chillies, nutmeg, cloves, &c., as all these, by retarding and lowering assimilation and tissue-building, very materially impair and impede the process of oxidation of the albuminous matter in the body. Beer and wine, too, should be avoided; sweet wines are bad enough, but even worse are *dry*, sour wines, for these will cause the gouty individual more harm even than good Cognac brandy (or whisky).

Acids generally, and in particular vinegar, also salads, lemons, tomatoes, &c., the acid contained in which is harmful to the gouty individual, should be strictly forbidden, while the highly-seasoned, bitter-sweet aromatic sauces and savouries, with which gouty persons with epicurean tastes are wont to eat meat dishes, cause more injury than the meat itself, which is generally made responsible for any ill-effects suffered in consequence of too rich a diet.

For similar reasons milk, and food prepared with milk, including cheese, must be prohibited, as it can be shown by experiments what serious harm is caused by acids generally, and, in particular, by the lactic acid contained in milk and the sebacic (or fatty) acids of cheese, in the case of gout.

There consequently remain but very few kinds of food that can be recommended to sufferers from gout, as being consistent with their condition. The proper diet should be made up solely of meat, fish, eggs, broth, and green vegetables, such as endives, curly endives, lettuce, leeks, cress, and like herbs, which are rich in alkaline salts and water, and altogether contain substances of little nutritive power, being at the same time extremely poor in starch and sugar. By following this method of nutrition the invalid will secure a sufficient supply of albuminous substances for all requirements of his system, without courting indigestion, acid gastric fermentation, or, consequently, the development of gout.

To allay thirst, pure or carbonated water is recommended. Vichy or Vals water may also be permitted. The alkaline waters of Carlsbad, Marienbad, Elster, Vals, Plombures, Baden-Baden, Homburg, Soden, Wiesbaden, Hunyadi-Janos, Friedrichshall, Wildbad, Casteien, and Bath are noted throughout Europe for their beneficial action in cases of gout.

Sir William Roberts, M.D., F.R.S., in his valuable treatise entitled, "On the Chemistry and Therapeutics of Uric Acid Gravel and Gout," insists still more emphatically on the imbibition of these mineral waters; he says: "Alkaline waters, such as those of Vichy, which are largely impregnated with carbonate of soda, have the power of alkalising the urine, and therefore absolutely protect against uric acid gravel during the period of their use."

But a judicious choice of food in regard to *quality* is by no means sufficient, as just as much, if not more, vigilance must be exercised in regard to *quantity*. A man suffering from gout, as we have said, must not take too much even of those kinds of food which his condition admits of; but what is particularly important is that he should guard against consuming an *excessive* amount of flesh food. If he *must* be sated, *i.e.*, experience the sensation of a distended stomach after each meal, for this is what many understand by satisfying hunger, he should far rather be allowed to ingest plenty of vegetables, which will agree with him, and which involve no risk of his developing gastric catarrh. The main object of the diet recommended for gout is not, indeed, to avoid flesh food; it is to avoid excess of food of any description, including those kinds which he is permitted to take (in moderation), and consequently, including also *meat.* Of whatever he chooses to eat, he should have *little.*

"I came to recommend this diet" (says Dr. Cantani), "by having had the opportunity of studying gout in a country such as ours, where the large majority of the very numerous gouty individuals is chiefly recruited from the wheat-eating population of our provinces. It stands to reason that one could not very well arrive at such a conclusion in England (the country of meat-eaters, *par excellence*) but rather at a diametrically opposed one, because there the majority of gouty subjects are meat-eaters—an apparent difference, which, by the way, is quite reconcilable with our views, provided our delineations regarding the value of the albuminates in the diet and organic consumption of the gouty subject be duly taken into consideration."

Cantani's gout dietary which differs so materially from the dietetic rules applied to gouty people hitherto (which substantially amounted to the total rejection of meat, fish, and eggs in favour of milk, mealy food, herbs, fruit, and even sweets) will no doubt surprise all those who consider consumption of meat as being the primary cause of gout. Yet they will no doubt readily understand this when they consider that this dietary, under which the gouty subject is only allowed to have meat, eggs, fish, broth, and vegetables, and even these articles in quantities just sufficient to still the hunger, is calculated neither to spare the albuminous bodies introduced, nor to circumscribe the work of their conversion into tissue. On the contrary, by compelling the system to utilise those albuminous bodies only, which it receives in moderate quantities, for the purpose of heat-production and respiration, as well as for assimilation and tissue-building, it may be relied upon to ensure their complete oxidation; to prevent the oxidising process from stopping short at the uric acid stage; and to effect their transformation and oxidation, ***continued up to the urea stage***, in an easier and more effective manner. This is further confirmed by the afore-cited fact that the urine of purely carnivorous animals frequently contains no, or at least only very slight traces of, uric acid. Our diet, moreover, prevents chronic gastric catarrh which causes acid fermentation, and, according to Lahmann, also increases the formation of uric acid (perhaps in the spleen or liver). These catarrhs, as we have shown, are not only the constant, or at least most frequent, but in point of fact the very ***provoking*** causes of gouty diseases; they are the immediate causes of the gouty attacks which become ever so much rarer as soon as these catarrhs are being prevented.

Our fixed purpose in the treatment of gout will be accomplished all the easier if, besides determining the quantity of food admissible and excluding all those substances which tend to save the albuminates and thus prevent their complete combustion, we requisition all those means at our disposal which augment the consumption and conversion of the albuminates. First and foremost in this respect are plenty of fresh air, exercise, and above all a liberal amount of work, no matter whether physical or mental. We are also decidedly in favour of outdoor games and physical culture (not carried to excess and *over*-development) provided there are no special reasons for their discontinuation. Neurasthenics and nervous subjects, generally, should abstain from any violent form of sport or exercise, and their gymnastics should, preferably, be without apparatus such as dumb-bells, developers, &c., &c.

Notwithstanding the fact that Cantani's efforts were mainly directed towards combating gout and rheumatism, his theories, nevertheless, throw a clear light on the entire uric acid problem—because it must be remembered that uric acid is the factor in the causation of these diseases, and, therefore, are of vital importance in the fulfilment of our present task.

Whereas Haig principally endeavours to prevent the introduction and formation of the blood-poisons, Cantani offers us the first effective *modus operandi* for the energetic expulsion of the uric acid already present in the system. And that is really our first consideration in dealing with diseases, acute or otherwise, which come under our notice. There are cases—and they are probably in the majority—where uric acid is so firmly deposited that the mere prevention of additional introduction of more uric acid will not suffice to eradicate the evil. How many adherents of vegetarianism, who have lived on a vegetarian diet for years, thus keeping the blood-poisons out of their systems to the best of their abilities, yet are not perfectly healthy, simply because they do not succeed in eliminating the deposits of blood-poisons once established in their organisms.

The elimination of the old concretions is by no means as easy and simple as even Haig's dissertations would lead us to believe. Thus Weisz, one of the most prominent of modern investigators, expresses himself as regards the solubility and excretion of uric acid, as follows: "In the human body the most diverse elements combine and cross in a most diversified manner, so much so that the question of the solubility of uric acid in the humours of the human body meets to-day with well-nigh insurmountable obstacles. We are still largely dependent upon general observations. The organism possesses, on the whole, certain means of protection against the precipitation of solid substances. Substances not readily soluble in water, as, for instance, heavy metals, are found intimately bound to albumen, which cannot be the case with uric acid, that being a product of metabolism. Uric acid circulates aimlessly, so to speak, in the human body. If the same, nevertheless, rarely precipitates, we must assume that the solubility of uric acid is greater in the human body than in water (the solubility in the urine is 10–40 times greater than in water) and that the quantities in circulation are minute, *i.e.*, the formation of uric acid could be kept at zero by the kidneys (no uric acid, in fact, has ever been found in the blood of healthy individuals).

In the blood of gouty subjects but relatively little uric acid—about 6 mmg. in 100 cm. of blood—was found. Reduced to an equal distribution in a gouty subject, weighing 70 kg., this works out at 4·2 grms. only. As to the solubility, the serum of the gouty subject will still be capable of dissolving and digesting quite a considerable amount of added uric acid (Klemperer)."

Thanks to Cantani, however, we are now in the possession of a thorough principle for the excretion of uric acid, which is not only logically perspicuous but also firmly supported by brilliant success.

The work of one single individual, no matter how brilliant, will not suffice to solve all the problems of so intricate and difficult a subject. The excretory processes of uric acid, *per se*, have not been the particular object of Haig's studies, and he denies, without substantiated reasons, the reduction of the uric acid to urea by oxygen. Cantani, however, emphatically insists upon this, and his idea to favour this process of combustion in so simple a manner, is nothing short of ingenious: *Carbo-hydrates and fat, as the foremost heat-producers, consume all the oxygen, therefore eschew carbo-hydrates and fat in your food and the oxygen will remain free to burn up the uric acid to urea.* What applies to uric acid equally applies to all other blood-poisons. This apparently very simple, but nevertheless epoch-making, theory has been, and is, productive of the most wonderful results and benefit to humanity.

For the present we will refrain from giving a detailed diet-list according to Cantani's principles, as further on we shall have to deal somewhat exhaustively with this dietary and specify it in combination with certain modifications and amendments yet to be investigated.

But we shall see that in certain cases even Cantani's wonderful curative principle will not prove all-sufficient. There are certain deposits and concretions of blood-poisons which are so firmly rooted that more drastic methods must be adopted. One of these is the *Schroth-Cure*, based on a totally different principle, which will be the subject of our inquiry anon. (*Vide* also the treatises "Perpetual Health" and "Will Power" already referred to.)

PART II

The Anti-collæmic Cure

CHAPTER I

A NEW FUNDAMENTAL PRINCIPLE IN THERAPEUTICS

IN the foregoing first part of the authors' effort the fulfilment of an unavoidable preliminary condition in the building-up of a usable and practicable method of treatment has been essayed, namely a comprehensible delineation of the true causes and engenderers of disease. Only by knowing the causes of a complaint will we be in a position to combat it with eventual success; only when we know what has gone wrong with a machine will we be able to repair it.

We, as well as all enlightened medical men, have frequently laid stress on this fact—that in the domain of therapeutics, as in medicine generally, there is but one reliable guide, but one convincing evidence, viz., experience and success, considered as one inseparable whole. Our knowledge concerning the last propelling forces of our organism is so deficient that we shall never achieve positive results on merely logical lines, and all discussions based on these alone will only amount to a quibble at words:—

"To customary words men still will link
Their faith—imagining they think!"

as Goethe very tersely puts it. Undoubtedly there may be some points open to criticism and dispute in what we have compiled in the first section of our present work. Haig, as was to be expected, has been violently attacked from different quarters, chiefly by German authorities. By some, perhaps because they are intolerant of every mental rival and are reactionarily opposed to any radical innovation; by others because he employs dietetic means and deprecates the drug-delusion, enabling the patient to practise self-treatment; and by some, merely because he condemns flesh-food and thus champions the cause of vegetarianism.

This shortsightedness is as characteristic of the official representatives of medical science as it is deplorable. Dr. Lahmann is very much to the point in this respect when he says: "It is not the doctor who has to suffer bodily for his mistakes and incapabilities, but his poor victims: his patients and objects of exploitation. These latter, however, are struck so painfully by the loss of health and money that they do not care a straw for all the discursive verbiage in the world but adhere to the one and only convincing evidence, which is *success*."

In the following, we shall endeavour to elucidate and explain Cantani's principles and also include our new method of cure, according to which, in direct contradiction to Haig, a flesh-diet is given preference. It is, however, far from our minds thereby to overthrow the entire scientific edifice erected by Haig. His revelations as to the causation of disease are, and ever will be, of far-reaching significance which the experience of many thousands confirms and supports. And the same may be said, with equal pertinence, of the discoveries and achievements of Cantani, Schroth, Lahmann, and others. We are only being guided by the actual results and successes of the divers methods, and have no wish to uphold fanatically the cause of one individual discoverer. Consequently we have selected but those particular points from each method which have appeared to us most suitable and useful for the philosophical elaboration and compilation of an effective and successful curative system.

According to our delineations in the first part, the blood is not only the source of health, well-being, and vitality, but also of all diseases. But in order to avoid a mistaken one-sidedness in such a generalisation, we must carefully differentiate between blood charged with poisonous matter and blood not normally composed (as understood by Dr. Lahmann). If we do not make this distinction, we might easily be accused of considering and treating all diseases as metabolic diseases, which would be wrong. Metabolic diseases proper, such as gout, rheumatism, diabetes, &c., are the direct products of blood-poisons. With the blood-poisons, in a larger sense of the word, we might also range the infectious diseases. As previously mentioned, however, there are also a large number of diseases due to under-nutrition. This latter phenomenon may be conditioned by collæmia, as formulated by Haig, or by dysæmia, as described by Lahmann.

Retarded blood-circulation is obviously tantamount to retarded metabolism and may at once entail under-nutrition in a given tissue or organ ; dysæmia—*i.e.*, if the blood do not contain the constituents requisite for the normal nutrition and building-up of a tissue, as, for instance, in rickets, anæmia, neurasthenia, &c.—may have similar consequences. When the nerve-substance is subjected to under-nutrition the causation of neurasthenia evidently lies in the blood, without, however, justifying us in describing neurasthenia as a metabolic disease—at least, not in the customary and accepted sense of the term.

However, this is again mere logomachy. We quite agree with Lahmann that after all there is only *one* disease which finds its origin in badly composed blood. What particular organ may be affected, or what special form and name a disease may find expression in, it is always a matter of a disturbance of the organism through the one fundamental cause.

After all is said and done, metabolism is the vehicle of the entire organic happening in health and in disease; and as we can but influence this process through the medium of the blood, the consideration of the latter will of necessity become the starting-point for a reliable method of cure. This principle, as a matter of fact, has been followed, consciously or unconsciously, by medicine for centuries ; alas ! however, in a most bungling manner, by trying to interfere with the metabolic process *through poisons*, instead of adopting the only correct and effective means, *i.e.*, *rational nutrition.*

The great error lies in completely confounding the very meaning of nutriments and medicaments. Nutriments are the materials upon which normal metabolism is, and can only be, built up. Seeing that the organism is constantly at work, the metabolism, as the supporter of such work, must always remain unimpaired and unchanged, drawing upon a daily supply of nourishment composed of homogeneous fundamental materials. Should the metabolism suffer any disturbance, the latter must obviously be adjusted by adequate fundamental food material. All matters, or materials, however, which are forced into the organism, while not belonging to this fundamental material, will cause derangement in the normal metabolic operations of the organism, and have to figure as poisons. Consequently, if a means exist of putting the disturbed metabolism in order, it can only be found in a judicious system of nutrition, but never in a drug. Nutrition alone can become a curative agent, but a drug will ever act as a poison.

The contrast between nutrition and medicaments becomes accentuated by the afore-mentioned fact that the metabolism of the human, as well as the animal organism generally, can draw upon *organised* substances only for sustenance. The chemistry of the human organism differs from the vegetable. Whereas plants can assimilate elements, animals are unable to do so. It appears that the animal organism has a higher and quicker metabolic action, which also accounts for its great powers of resistance and activity. It has, furthermore, been proven by experiments that the animal body will only tolerate, and can only assimilate, organised matters. In spite of this fact our physicians of the old school will persist in prescribing tons of *non*-organised matter for the purpose of healing, year by year. Iron, for instance, cannot be assimilated by the organism except in *organised* combinations, such as spinach, lettuce, leek, &c., but not in inorganic preparations ; nevertheless, innumerable anæmic girls and women are made to swallow enormous quantities of pure iron which can only act as a poison, as it will never enter the metabolic change.

It follows, therefore, that a rational method of cure must employ, for the purpose of re-establishing broken-down metabolism, agents which contain, as food-stuffs, such *organised* constituents as are indispensable for building up the system and simultaneously help to develop the metabolic operations upon which the body depends for maintenance. Any matter foreign to this building and sustaining material must be carefully avoided, and, moreover, organised stuffs only are admissible. The vegetable alkaloids of opium, coffee, tea, &c., although assimilable by the blood in organised form, act as poisons because they find no place in normal metabolism, and are useless, for instance, in building up the organism. On the other hand, iron, sulphur, and phosphorus, although indispensable in the economy of the organism, cannot be assimilated by the blood in their original inorganic forms, in which they will act as poisons ; they are only of use in organic combinations.

This truism, although of far-reaching significance, is rudely ignored and violated by those very people whose duty consists in preserving it. Medical men study chemistry and the composition of pharmaceutical preparations which are manufactured on a large scale—in fact, embrace whole branches of industry—while they know practically nothing about the physiological effect and significance of the various food-stuffs. Instead of serving Nature they serve Capitalism, which draws large dividends from the manufacture of medicine poisons.

Starting from these important and all-determinative points of view, our anti-collæmic radical cure can only premise the following fundamental principles:—

(1) *To eliminate the blood-poisons from the blood and tissues, and, simultaneously*

(2) *To endeavour a correct composition of the blood as understood by Dr. Lahmann.*

If we succeed in reaching this goal, we are equal to wrestling with every disease and complaint, always provided that the patient still retain sufficient vitality, resisting and natural healing power, to admit of the possibility of re-convalescence. Should our anti-collæmic cure prove too late, any other treatment, and, above all things, all noxious drug-poisons will be out of court. We do not claim that miracles can be wrought by our treatment, and so far no specific has been found to conquer death. A consumptive in the last stage of the disease is beyond human help.

Apart from the somewhat carefully delineated specification of the blood-poisons in the first section of the present effort, the conception of the blood-poisons, as engenderers of disease, has for some time past found recognition in large circles, and especially by the representatives of the various "natural methods of treatment." We meet with numerous methods intended to prevent the development and formation of blood-poisons on the one hand, and their expulsion from the system, on the other. But all these methods are one-sided and insufficient, and embody no actual principle, *i.e.*, they consist solely in curative attempts which are more or less based upon experience and success. They may afford relief, at times even great relief, but in severe cases they are generally found to be abortive. Most of them, in point of fact, are merely calculated to heighten the activity of the excretory organs, principally the skin, bowels, and kidneys. Admittedly, this is the most direct way of expelling the blood-poisons, but it by no means suffices; least of all in severe cases. Only the indirect way may hope for success in desperate cases, say, for instance, by hydro-electro-magnetopathic action on the nervous system (which governs the whole organism), in order to revivify the entire interdependent actuating faculties of the body.

One thing has so far characterised all methods of treatment: they all lacked a really well-founded and clearly-conceived curative principle, and would never presage success with any amount of certainty, but had to rely upon testing and experimenting. In the most favourable cases they afforded no more than relief, and that, generally, after years of application only. The numerous physico-dietetic treatments are a striking illustration for this statement. They generally delineate a certain diet to be followed through life, but the clearly recognised curative principle is missing. Question, for instance, a diabetic subject, who has consulted various physicians, as to the principle of the dietetic precepts given him by the several doctors. It always will be found that a really tangible principle is lacking; each one prescribes a different dietetic system, which often is in open contradiction to one suggested by another physician—all, however, are supposed to cure one and the same disease. Of course a certain amount of patience must be demanded of the invalid. It always takes some time to *cure* a disorder, and the patient cannot expect to be cured in a few days when he may have a "past" of years of injudicious living. Medicaments certainly will not cure him, although their spontaneous effect is admittedly tempting and seductive, and the consequences are disregarded as long as some degree of temporary relief is achieved. Those sensible people, however, who are willing to exercise some patience in following out a rational system of dietetics, based on a *positive* principle of cure, will be well rewarded, because they will not only free themselves from a disorder, perhaps of long standing, but will simultaneously adopt the one and only prophylactic measure to prevent relapses, and even fresh developments of almost any kind of disease.

Our curative principle, in the first instance, is not based on a vegetarian diet, because vegetarianism does not admit of, nor support, this principle. We can, under no circumstances, blindly side with one particular principle. Should the principle of the anti-collæmic cure lie in vegetarianism, we would advocate it without hesitation. We fully appreciate the advantages of a vegetarian diet, but what we deprecate and heartily dislike is the blind fanaticism with which its advocates dogmatise. We shall duly make room for vegetarianism, but only where it is in its proper place. The anti-collæmic cure does not require it, and this very fact will greatly assist its becoming of eminently practical value to the large public. We wish to put the plain question: How many people can really live up to a vegetarian dietary under existing conditions? In reality even the pluckiest and most energetic individuals live in surroundings which they cannot mould to suit their own fancies and predilections. The man with the long purse need not care about anybody, and can afford to live, eat, and drink as he pleases. Unfortunately, however, such folk are the rare exception, the large majority of people is obliged to conform to prevailing customs. The most salutary thing, *e.g.*, for stimulating the activity of the skin and promoting health generally, is air baths taken in the open; but who has the opportunity of indulging in this luxury outside of sanatoria, or during the few hot summer days by means of open-air bathing? Theory is applicable in most cases—but practical everyday life at most times overrules it. We all hope and ardently desire that future generations will become more sensible; change the irrational mode of living now in vogue, and embrace the principles of a more common-sense hygiene —the seed of which lies, though embryonic, in the efforts made on behalf of our natural method of cure, and to a large degree also in vegetarianism. At the present juncture, unfortunately, we are still a long distance from our goal.

Another impediment to the achievement of quick results lies in the change from ordinary living to vegetarianism, inasmuch as, at the outset, the patients feel weak and depressed, and frequently complain of flatulency. They lose courage and heart, and are afraid of escaping one evil but to encounter a greater, and only the most energetic succeed in overcoming this transitory stage—the number of the latter, however, is deplorably small.

But now to our therapeutical principle.

A famous English physician has said, "Give me the power to create a fever and I will cure every disease!"

Upon this contention our therapeutical principle is built up—fever as now understood, is no more than a concomitant of a process of reaction against a foreign disturbance in, or injury inflicted upon, our organism; it is the expression of the natural curative power inherent to this organism. The feverish state is produced by a series of causes, such as nervous excitation and strain, muscular over-fatigue, acute or chronic inflammatory processes, and, chiefly, by infections of a most diversified description. What are the principal characteristics of fever?—heightened temperature [generally ranging from 102·2° to 105·8° F. (39° to 41° Cent.)]· and higher frequency of the pulse. These symptoms are tantamount to a heightened process of oxidation or combustion—the progress of which destroys, burns up, and excretes the blood-poisons, the residuary products being found in excessive quantities in the urine and expiration during the fever. The urine is richer in urates, uric acid, leucine ($C_6H_{13}NO_2$) creatin, tyrocine, &c., and the quantity of carbonic acid exhaled during the fever is almost double that of normal states. It must be admitted, however, that

Nature often plays a hazardous game, " to be, or not to be," as the fever frequently also attacks perfectly healthy material and thereby jeopardises life.

We can follow Nature's effective example by endeavouring to create a feverish condition for the purpose of healing, without, however, realising it *in toto*, *i.e.*, without inviting its dangerous features. We try to induce and maintain a quickened metabolic change, a heightened process of combustion and oxidation; we burn up the blood-poisons, not in the excessive heat of fever but in the slower fire of a heightened oxidation and quicker metabolism.

We thus accomplish quicker and surer results than all other methods of cure, which only tend to increase the activity of the excretory organs. The latter, themselves, may be diseased and will fail to render service, or the morbid deposits are often so stubbornly fixed that the excretory organs are powerless to move them. The only effective means of attacking them lies through the medium of the blood.

There are two ways by which to bring about this heightened oxidation :—

(1) *The husbanding of the oxygen according to Cantani's principle.*

(2) *The increased activity of the heart by means of a dry-diet*, i.e., *reduction of the blood-pressure.*

In the first part of this book we have dealt exhaustively with Cantani's principle, which is radical in effect and accompanied by brilliant results. The oxygen is simply economised for the purpose of burning up the blood-poisons by means of eschewing all those food-stuffs, carbo-hydrates and fat, which, as heat-producers, consume oxygen largely. This theory is as simple as it is ingenious; and *diet* is the only means of realising it.

Lately, an oxygen-therapy has been evolved for the purpose of introducing oxygen in the blood artificially—a device which is as abortive as the attempted artificial introduction of the nutritive salts. Respiration, *i.e.*, taking in oxygen from the atmosphere, is undoubtedly subject to well-defined laws, equally as much as the assimilation of solid matter. The amount of oxygen taken into the body either by respiration or in artificial preparations is exactly determined by the amount of such material in the system to which it can be bound and which takes part in the normal metabolism of the body. Even in case the blood did accept the artificially introduced oxygen *ad lib.*, the whole procedure would be futile without taking Cantani's principle into consideration, because the carbo-hydrates and fat would also consume the artificially introduced oxygen and none would be left free to burn up the blood-poisons. Thus the only reliable means at our disposal is Cantani's principle, embodied in a powerful dietetic regimen.

It now, *a priori*, becomes evident that to carry out Cantani's principle a vegetarian diet is quite inadmissible. It is starch-flour (which is converted into sugar through the process of digestion), sugar, and fat which are so plentifully represented in a vegetarian diet that the husbanding of the oxygen becomes a matter of impossibility. Already the copious ingestion of bread by the vegetarian renders any such attempt illusory. The possible indictment may be brought against us of having overlooked the fact that carbo-hydrates and fat are the chief sources of muscular energy. We are not, however, dealing here with the establishment of the various nutritive values, but with the *rationale* of the metabolic process.

As already shown by Cantani, meat contains the albumen necessary for nutrition in the most suitable form for easy assimilation. But flesh-food in itself, as shown by Voit and other authors, accelerates the metabolic change, which fact alone has rendered the opponents of meat-diet liable to attack. Voit has demonstrated that, after a food-ingestion rich in albuminous matter, the excretion of nitrogen soon commences and after a few hours has already reached its climax and then gradually subsides.

Thus, there can be no doubt that immediately after a meal (particularly if rich in flesh-food) the metabolism and "turn-over" of albumen in the body becomes active and lively. The animal albuminous matter is readily digestible and assimilable and, therefore, quickly enters the blood circulation and is quickly disposed of for the building up and adjustment of the exhausted body-materials. It is fitting at this juncture to quote Dr. Albu—though Haig's strongest opponent:—

"Scientifically more serious is the contention that meat, among the albuminous comestibles, is more injurious on account of the irritants which it contains, in the shape of basic extracts, such as creatin, creatinin, xanthin, and several other chemical substances closely related to uric acid. These irritants are considered by vegetarians as poisons which impede digestion, vitiate the blood, weaken the heart and nervous system, cause kidney disease, and create all kinds of disorders in the human body. As regards the action and effect of these meat substances opinions, even of experts, are not quite clear. Some deny any, and particularly injurious, effect whatever; others, on the contrary, regard them as a desirable stimulant for the digestion and metabolism of the body. To me the truth seems to lie between these two extremes. What distinguishes meat from other albuminous animal food-stuffs—milk and eggs in particular? The answer must be: it contains albuminous and nitrogenous extractive matters. The albuminoids are substances akin to albumen, which through the process of cooking are converted into gelatinous material, such as glutin, chondrin, &c. The dry substance of meat contains of the above 1·5 per cent. and 0·25 per cent. extractive matter. The food of herbivors as well as the human suckling lacks these constituents, in deference to which fact we cannot deny their dietetic significance. There even exists between these two groups of substances a close relationship, which heretofore has not been sufficiently appreciated: the glutinous matter—(which, among the albuminoids, is the substance most similar to albumen and in alimentation may even partly replace it)—contains gelatin sugar (glycocol $C_2H_5NO_2$) which we find in the humours of the body. Chemically closely allied, however, to this substance, viz., methylglycocol, is creatin, one of the bases of muscle. Greater significance than to the albumenoids—from the standpoint of view of hygiene and alimentary physiology—is due to the products of the regressive metamorphosis of metabolism, prominent among which is creatin, contained in muscle substance (0·3 per cent.). Hence it must become apparent that we cannot regard it as an absolute poison, the consumption of which must necessarily injure health; the smallness of the quantity could only justify the assumption that large amounts of meat partaken of within a short period may become conducive to accumulating excessive quantities of creatin in the body, which then may have deleterious consequences. As a matter of fact we have no knowledge of any specific poisonous or irritant effect of creatin, neither from experiences in clinical pathology nor from experimental physiology. At best the hypothesis might be justified that large doses may become injurious in some undefined direction. We might, *vice versâ*, with equal justice assert—based on a universally recognised pharma-codynamic law—that small doses of creatin might act beneficially, *i.e.*, by accelerating and reinforcing the digestive process. The stimulating properties of the creatin might then be regarded as a physiological assister, and might, indeed, be welcomed—in fact our organs require for the due performance of their functions certain artificial stimulations. Some food-stuffs fail to rouse the digestive juices sufficiently, so much so that they urgently require an addition of spice and condiments.

" In this particular respect the animal foods claim preference and become of great value in counterbalancing the sluggish effect of vegetable foods on the digestive ferments of the stomachic and intestinal canal. The energetic expedition of the digestive processes is the *conditio sine qua non* for an ever active metabolism of the entire bodily fabric. While these slight artificial stimulants are by no means always and absolutely necessary, their use may be regarded as helpful rather than injurious. From all these data we may well deduce that, as regards the standard of meat bases, the consumption of meat will at times bring about a more energetic process of digestion and metabolism, though we hereby distinctly deprecate *excessive* consumption as being prone to act in quite a contrary manner. Haig commits the same error as the vegetarians in omitting entirely the *quantities* of xanthin when emphasising its injuriousness to the metabolism as an irritant. Scientific medical men unanimously admit that excessive consumption of meat constitutes one of the factors which tends to produce gout, apparently in consequence of overcharging the blood with uric acid-forming substances. However, the small quantity of xanthin bodies, ingested with the average amount of flesh-food, is so promptly eliminated from the body (as long as it is not oxidised) that an excessive accumulation of uric acid cannot take place in the blood.

"The fault that vegetarians find with meat is insignificant, when the fact of its nutritive value—based on its albuminous properties—is taken into consideration. Even if the meat bases exercise an undesirable irritant effect on the digestion and metabolism, such slight disadvantage may well be overlooked in the face of the high nutritive virtue peculiar to this article of food.

"A totally different complexion is thrown on the whole question in dealing with beef-teas and such-like, wherein the meat bases, dissolved in water during the process of cooking, are completely retained, whereas the nutritive albumen is entirely, or almost entirely, absent. That *bouillon* should have found such universal favour among European peoples is only due to the appetising and 'digestion encouraging' action of the concentrated form of meat bases rich in nitrogen, contained in such broths.

"It is quite erroneous to attribute any real nutritive or strengthening properties to these preparations. Virchow already, forty years ago, but apparently without success, has endeavoured to make it clear that these meat extracts, though pleasant to the palate and probably of no harmful action on the healthy individual, are still of so small a nutritive value that, as strengthening foods, they may be almost ignored, though he admits that, indirectly, they may be of some slight use in aiding nutrition by virtue of their meat bases. It may be well to mention here that in the case of sufferers from stomach and kidney troubles, the great concentration of irritants may produce, at times, harmful results."

Whilst condemning extracts of meat as above described, we must make one reservation, and it is only just to mention it in this connection, *i.e.*, *Bovril.* This preparation distinguishes itself from all other meat extracts by the fact that it contains an appreciable percentage of albumen, which has been added to it by a special process. Bovril, therefore, cannot be correctly styled a mere stimulant, but, on the contrary, should occupy a prominent place with the nutrients proper. Through its albuminous ingredients it becomes a veritable "extract of meat," not only in name, but also in reality, by virtue of its being a true and complete substitute for meat. Such an innovation in the production of meat extracts is very welcome, because in very many cases some such preparation is almost indispensable when meat is not available.

"If the foregoing delineations prove that albuminous, and particularly flesh-foods constitute an active stimulant and accelerator for the metabolism, these advantages manifestly recommend them for acceptation. In order to prevent the metabolic combustion becoming over-active by reason of having too liberal a supply of albuminous foods, rational alimentary physiology restitutes the metabolic equilibrium by an admixture of foods free from nitrogen which is burnt up more slowly in the body and yields a means for economising the albumen; therefore it will be seen that Nature, even in this domain, has made wise provisions, so that, to use a metaphor, the trees do not grow into the sky. Here too, a dispassionate contemplation of matters will necessitate the deduction and demand that an immoderate heightening of the metabolism must be checked by a quantitative restriction of the albumen. Only extreme and exaggerated quantities of albumen can jeopardise health."

Whereas we require no *excessive* heightening of the metabolism in order to carry out our principle, the degree which we require for that purpose can only be attained through the agency of flesh-food. We are dealing here with a curative principle and not with a staple diet, and it will be shown that in our proposed "cure" all possible meat-poisons will be completely burnt up, leaving no deleterious after-effects. Whether these meat-poisons can ever become actively injurious (shall we say, for instance, by admitting carbo-hydrates and fat and thus lowering the metabolic process?) is a question that for the present need not be dealt with.

CHAPTER II

THE ANTI-COLLÆMIC RADICAL CURE

Combustion and Elimination of the Blood-poisons by Economising the Oxygen, according to Cantani's Principle

HAVING treated at length in the first part and foregoing Chapter the theoretical substructure of our subject, it is now our purpose to elucidate the practical application of these principles to our Anti-Collæmic Radical Cure, by means of graduated diet lists, or *Menus*, as we suggest calling them.

As already stated the process of combustion is dependent on two principles: (*a*) the husbanding of the oxygen, according to Cantani, (*b*) increased activity of the heart, *i.e.*, reduction of the blood column; of these, principle *b* is more drastic than *a* and has to be reached in easy stages. There are a series of intermediary stages connecting *a* and *b*, and which one to choose depends naturally on the state of the disease and to what extent the blood is overloaded with blood-poisons, which latter can always be ascertained by the experiment of the capillary reflux already explained. Both principles, moreover, admit of various such gradatory stages.

We shall first deal with Cantani's principle according to which the process of combustion of the blood-poisons is heightened by husbanding the oxygen. This is effected by suppressing the carbo-hydrates and fat in the food. Those who have grasped the full extent of this principle, could, in fact, easily compile their own "menu." In our delineations however, we endeavoured to show, that a really "radical cure" can only be evolved if we take into consideration all those other important revelations as to the nature of disease which, for instance, have been made by Dr. Lahmann in emphasising the great importance of the nutritive salts. It is by no means sufficient to clear the body of morbid matter; we must at the same time provide for fresh and suitable material for the body. By this means we may succeed in not only *gaining* but also *maintaining* what we may truly describe the greatest wealth, namely, *health*.

In spite of both Cantani and Haig, our menus, therefore, must be arranged with due regard also to Lahmann's principle, which will render our task more difficult and complicated.

We have already referred to the conflicting opinions existing between Haig and Cantani as regards milk and cheese, which subject alone would furnish material for endless discussion. Furthermore, Cantani apparently had no cognisance of the important question of the nutritive salts, and Haig did not deal with it until in his quite recent publications. We have tried to overcome all these difficulties in our present effort, depending again upon practical experience.

In the first instance we propose discussing the various combinations and specifics which, in recognition of the aforementioned difficulties, will have to supplement our diet-menus.

Specifics for the Anti-toxic Regeneration of the Blood

CIDER-WHEY

Of utmost importance in the anti-collæmic radical cure is "*Cider-whey.*" This specific forms a bridge over the conflicts separating Haig and Cantani as regards milk, and also takes Lahmann's problem of the nutritive salts into account. The following remarks of Dr. R. Weil, although already given in our previous effort, viz., "How to Restore Life-Giving Energy to Sufferers from Sexual Neurasthenia," must be once more set before the gentle reader on account of their far-reaching importance:—

"Nature provides one substance which supplies all the constituents that human life needs for its maintenance, and that is *milk.* Milk is the nourishment assigned by Nature herself to the new-born infant, while even an adult can live and thrive entirely on milk. In its natural state, however, milk presupposes a good digestive power, owing particularly to the high proportion of the somewhat indigestible casein it contains. While the other constituents of milk are immediately absorbed by the walls of the stomach and conveyed to the gastric juice ducts, the casein coagulates in the stomach into a mass of clots, which it is the task of the gastric juice to dissolve and render capable of digestion. It is, therefore, of importance to become acquainted with a process calculated, in a great measure, to free milk from that body, the digestion of which is so difficult. This is best accomplished by the addition of an acid, for which purpose a variety of acids, such as tartaric, &c., may be used.

"But the most effective means is the employment of cider, which, in combination with milk, represents two natural substances possessing real curative properties.

"Herr W. Petsch, though not a medical man, had occasion to ascertain the excellence of this mixture, and by means of this simple remedy effected cures in cases with which our ablest physicians confessed themselves unable to cope, simply because they relied on their medicines alone, without taking sufficient heed of the importance of suitable nourishment. It is only fair, therefore, to that gentleman to call attention to the purely dietetic means of curing disease which he discovered, and which in its effect is invariably useful, never harmful, and should on no account be confounded with any secret or 'patent' medicines such as have been so much extolled of late.

"By mixing milk with cider, the former, first of all, is made to coagulate; the casein runs into lumps. The milk then divides into two separate component parts—the coagulated casein, which contains a small proportion of fat and albumen, and a cloudy liquid known as whey. Now this whey contains the following constituents: Milk-sugar, fat, casein, albumen, and salts (soda, potash, magnesia, lime, iron).

"The casein contained in the whey is in a finely divided condition, while the coarser part is eliminated in the process of coagulation. All these substances contained in the whey are of great importance for the nutrition of the body, and dissolved in this form are readily assimilated—that is to say, are absorbed and worked up by the juices and fluids of the body with ease.

"Now, while the stomach of an invalid cannot readily digest pure milk, it is always capable of absorbing lactic fluid from the components that impede digestion, and of thus infusing it into the blood. The acid of the cider disappears in the process of coagulation of the milk and no longer disturbs the functions of the stomach, especially if excess be avoided.

"'Cider-whey' is best prepared as follows:—

"Cider, milk, and water, in equal parts, are poured into a clean vessel and the mixture is heated, but not brought to ebullition. It is then filtered through a clean cloth. The dull liquid passing through the filter is the whey, which should be heated before consumption. In the case of persons who object to its insipid taste, and children, a little sugar may be added. To very debilitated invalids small quantities must be given to commence with, say from one to two tablespoonsful three times per day; no more than a whole cupful should ever be drunk in one day. Should a sensation of pressure on the stomach, or diarrhœa set in, the quantity should be reduced or the whey dispensed with altogether for the time being.

"The effects produced by cider-whey are as follows: The furred tongue becomes clean, the appetite is restored; so is the regular action of the bowels; the urine, which before was clouded and dark, becomes clear and improves in quality; and all feverish symptoms give way. The phlegm on the chest becomes loose and the torturing cough is soothed. The improved appetite enables the body to be better nourished, and the general feeling of vigour increases.

"The use of cider-whey is especially recommended in the following diseases: Scrofula, rickets, cough in consequence of catarrhous irritation of the larynx, windpipes and lungs, digestive troubles, affections of the stomach, bowels, and liver, anæmia, febrile diseases, particularly typhus; very useful also when in the stage of reconvalescence."

W. Petsch, however, is not the actual discoverer of the healing power of cider-whey. The latter is, indeed, an old "simple" which has fallen into oblivion, or, more correctly, has been ousted by the more modern, though less rational, custom of drug-administration.

In later times several "Nature doctors" have glorified this discovery as a new one; this, however, is a distortion of facts. Mr. Ebbard himself knows an old soldier, eighty years of age, who forty years ago cured himself completely of some disease of the lungs by the steady use of cider-whey, after all doctors had pronounced his case incurable and hopeless.

For our immediate purpose—not regarding the curative effects described by Dr. Weil—cider-whey is of eminent importance, because the casein and fat are bound to the acid of the apple and are eliminated; thereby effecting a compromise with Cantani's emphatic condemnation of milk. Moreover, taking into consideration Dr. Lahmann's exposition, the whey (after the casein and fat have been separated) contains all the nutritive salts, the importance of which we so strongly insist upon. We wish to recall the fact that Dr. Lahmann took for his criterion, and made his deductions from, the nutritive salts of the milk, both as regards composition and quality, and indeed built up his whole theory on their proportionate distribution in it. In this connection it may cause surprise that Dr. Lahmann himself did not hit upon cider-whey, which practically in itself embodies the ideal he sought. Cider-whey contains the nutritive salts in the exact proportions demanded by Nature for perfect nutrition. The whey is, therefore, the most natural complement of our alimentation, and we can expect more certain and correct effects from it than from Lahmann's artificially prepared nutritive salts, even though they be extracted from plants and food-stuffs and thus administered in organic form.

The proportionate mixture of nutritive salts in cider-whey is undoubtedly a correct and efficient one, and cannot be successfully imitated in any artificial preparation. For our purposes the manufactured nutritive salt preparations are not serviceable, because they generally have an admixture of flour, and are administered in the form of soups, bread, biscuits, &c.—all mealy food being at variance with our principle of oxidation. Leaving "patent" preparations quite out of the question, cider-whey boasts of the additional advantage over vegetables, plants, fruits, &c., in not being subject to seasons, and being easily obtainable throughout the whole year. The numerous and wonderful curative effects that we have had occasion to observe are directly attributable to the natural composition of the nutritive salts in the cider-whey, thus convincingly bearing out Lahmann's admirable theories. In our previous effort, viz., "Life-Giving Energy," we have had cause to dwell upon the great value of cider-whey for the nutrition of the nerves, recommending it strongly to all suffering from nervous exhaustion, and we hereby once more desire to lay stress on this fact. In anæmia, particularly, it would be difficult to find a better tonic; it is a blood-builder *par excellence*, and will assure really reliable relief quicker than all the iron preparations extant. Another point is that the *cider* contains salts and nutritive ingredients, whereas its excessive acidity (particularly in inferior qualities) is neutralised by the coagulating process used in preparing the whey.

Before proceeding further, however, we must make an important distinction between alcoholic and non-alcoholic ciders, giving our serious consideration to the high value of the fruit juices.

Although the dietetic value of fruit should by now be established beyond question, it (fruit) does not receive the attention which it merits as a nutrient. The large masses consider our summer fruits—cherries, bilberries, and the like—little more than delicacies which may occasionally be partaken of when in season, ignoring, through ignorance, their great nutritive and health-giving value—a value, therefore, which is not sufficiently utilised. These fruits, berries, &c., contain all the most important nutritive salts indispensable for normal sanguification—such as potash, soda, lime, phosphoric acid, sulphuric anhydride, silicic anhydride, iron, &c.—beside other nutritive agents in large percentages and in a form more readily assimilable than any other articles of food. Besides these, they contain certain other nutritive agents, and consequently we must recommend their regular consumption for the benefit of health and proper maintenance of the body. We must, of course, admit that there are some difficulties in following our advice, because fresh fruits, such as cherries, plums, and berries are only obtainable during a short period of the year, and the acquisition of foreign fruits, preserves, marmalade, &c., is at times rendered difficult on account of the expense involved; and it should also be borne in mind that preserves are considerably reduced in nutritive value, and can in no way stand comparison with the value of fresh fruits. A fairly efficient and cheap substitute for fresh fruit, as regards its intrinsic virtues, is found in the several fruit juices; presupposing, of course, that their preparation be a rational one and answering the requirements of hygiene. If prepared from really ripe and fresh fruits these juices possess, beside the odours characteristic of them, large amounts of fruit acids (and every fruit has its own), sugar, albuminous matter, and salts. All these constituents condition their particular flavour and high dietetic value.

These ingredients are, however, more or less changed and decomposed through the process of fermentation: sugar is changed into alcohol and carbonic acid: the albuminous substances are entirely destroyed: the salts undergo chemical changes; and finally the odour produced by certain volatile oils in many cases becomes more intensified —the resultant of these divers reactions is what we call wine! Should we desire to prevent this process of fermentation we must employ certain preservatives, the principal one of which is sugar, which, if added in fairly liberal quantities, also answers the purpose of improving the flavour. All other preservatives, and there are many, must from a hygienic point of view be rejected as injurious to the body. Modern technics, aided by scientific experience, has succeeded in preparing and preserving fruit juices—particularly of grapes, apples, and pears—to which we can take no exception. There are several well-known firms who make a speciality of non-alcoholic fruit juices prepared from fresh fruit, and it would be as well, in view of our above remarks, to prepare the cider-whey from non-alcoholic cider of a reliable make. Those cases where *alcoholic* cider should be used will be duly specified.

How to prepare the Cider-whey

As already mentioned, the cider (irrespective of whether alcoholic or non-alcoholic), fresh milk, and water are mixed in equal parts, which decoction is heated to 194° F. (90° C., *i.e.*, *not* up to boiling-point), and then strained through a linen filter—the filtrate is the whey. The residue of coagulated, cheesy matter is thrown away and the cloth washed out if required for further use. Even the filtrate contains a little casein in minute particles, in which form it should prove easily digestible; there are, however, some people whose digestive apparatus is so run down that even the slight amount of casein will cause them some discomfiture, and to these we recommend the following recipe:—

2 glasses of cider
1½ „ milk
1 glass of water

Strain this decoction two or three times.

One may prepare cider-whey sufficient to last for two or three days; but it is preferable to make it afresh each day.

After standing awhile a deposit will settle at the bottom of the vessel containing the whey, which should *not* be drunk.

Cider-whey should be taken slightly warmed, particularly in cases of weak stomach; we ourselves have taken this tonic cold, even iced, in summer; but we do not advise the imitation of this practice, which we only mention to show that the question of temperature is not of very great moment.

Cider-whey should *never* be taken with, but only between, meals. Between meals it can be taken at any time in small quantities, say sufficient to fill a tablespoon or small cup. When travelling, or at your office, it may be carried in a bottle.

The whey made of non-alcoholic cider is very palatable—less so is the alcoholic variety, in which case the small inconvenience must be tolerated. To children who demur at taking cider-whey, it may be administered with a slight addition of raspberry or other palatable and non-injurious fruit juice.

In some districts it is impossible to obtain cider-whey, and at times, particularly in large towns, the cider is adulterated to such an extent that it becomes quite useless, and, in fact, injurious; in such cases it may be replaced by a light white wine: Hock, Moselle, Sauterne, &c.

Where even white wines are beyond reach, the cider-whey, to solve the quandary, may be supplanted by

LEMON-WHEY

which is prepared as follows:—

Milk and water are taken in equal parts; to a pint of this mixture is added the juice of a lemon (2½–3 dessert-spoons), and the whole is heated to 194° F. (90° C.) and then filtered in the manner described previously. If too much casein still be present in the filtrate, add a few more drops of lemon-juice and filter again. If no fresh lemons be at hand, prepared lemon-juice may be used. ?(

RAW APPLE-PEEL

One of the finest dietetic agents to assist the elimination of the blood-poisons and, in particular, uric acid, is *raw apple-peel.* Although Cantani prohibits fruit on account of its richness in sugar, we may well, in the interest of the patient, make an exception with apple-peel (or apples).

J. Weiss found that the administration of a pint of cognac-brandy had no effect whatsoever on the diminution of uric acid, although the quantity of urine was augmented. Eight lemons caused a slight decrease; but the consumption of 860 grms. of apples *with* the peel brought about an extraordinarily plentiful excretion of uric acid which lasted for two days. Weiss attributes this striking effect to the slight amount of quinic acid contained in the peel.

Those who cannot support raw fruit should take stewed apples or apple-sauce, cooked *with* the peel, which, by the way, also gives a better and stronger flavour. No sugar, or at least but very little, should be used.

A real health-beverage, and at the same time, the best substitute for tea, coffee, and cocoa is

APPLE TEA

which is not only free from any poisons and narcotics, but has a most remarkable effect on the elimination of uric acid, besides being rich in ferric phosphates—in organic form—and therefore of the greatest importance to anæmics. It possesses the great advantage of a most agreeable taste, which has a striking resemblance to China tea. It should be prepared from choice apples only, and be absolutely pure.

How to prepare the Apple Tea

The quantity of apple-tea required is very small. Generally one teaspoonful suffices for two cups. If a stronger flavour be desired, the quantity of tea must be increased accordingly.

The tea has to be soaked in water for several hours in order to get all the good properties out of it; thus the tea for breakfast, for instance, has to be put into cold water the *preceding evening*, which will allow the tea sufficient time to soak during the night.

In the morning this same water, together with the apple-tea, is boiled for five minutes; after having been passed through a strainer it will be ready for drinking.

If time does not allow of having the tea well soaked, it will be necessary to increase the quantity of tea and boil it for a quarter of an hour.

The tea may be taken with a little sugar and milk, and no restriction as to time and quantity is made.

SALADS AND VEGETABLES

To increase the alkalinity of the blood a variety of salads and vegetables, rich in potash, soda, and lime, are at our disposal. We have previously referred to them, and Cantani also recommends the following particularly: Endive, lettuce, green-leek, dandelion, stinging-nettle, and celery.

Watercress, having specific alkaline properties, should be eaten daily or at least whenever obtainable. When out of season it may be replaced by celery, fresh cooked, or as salad.

Some people prefer the above salads and watercress cooked like ordinary vegetables—spinach, for instance. We do not, however, recommend this practice, as it renders the bill of fare too monotonous. Salad and fresh herbs always afford a pleasant change, and in addition retain their valuable nutritive salts completely, whereas boiled vegetables become often almost devoid of them. Radishes should be eaten freely—they contain plenty of soda and are very

& lime

wholesome. We must strongly insist upon the use of lemon-juice instead of vinegar, and also advise adding onions in making all salads.

Certain vegetables render most valuable assistance in eliminating uric acid. Dr. Luff, in this connection, tested sixteen different kinds of vegetables and has found that spinach stands foremost among these. Both Cantani's and Haig's dietetics include vegetables. The six principal kinds of vegetables, according to the proportion of potash and soda which they contain, may be classified as follows:—

Order of Dissolving Power	Potash and Soda	Lime
Spinach	3·65	0·71
Brussels sprouts	3·17	0·41
Savoy-cabbage	2·67	1·14
Cauliflower	2·28	1·55
Seakale and winter cabbage ...	2·43	1·84
Fresh green peas	2·97	0·33

Preference should therefore be given to these vegetables when following our dietary.

Potatoes are almost as effective as spinach for the elimination of uric acid; they, however, contain a very liberal amount of starch-flour, and should, therefore, be eaten with very great moderation. Pulse, such as haricot beans, lentils, and peas, must be rigidly eschewed.

All other vegetables should be avoided, as they contain more or less quantities of acid-radicals, which impede the excretion of the blood-poisons. Exceptions to this rule will be specified in the respective Menus.

HERBS

A powerful adjuvant of our "Radical Cure" for the improvement of the blood will be found in Nature's own medicinal herbs. They are neither drugs nor poisons, but marvellous gifts of Nature herself, which man nowadays generally passes by with indifference, quite unconscious of their inestimable value. Our forefathers knew these precious herbs or "simples" well and used them successfully for the preservation of their health; but our modern world, with its haste and precipitation, with its wholesale manufacture of pharmaceutical and chemical "preparations" and "patent" medicines, can neither appreciate nor understand them. The herbs gradually sank into oblivion, making room for the study of chemistry and pharmaceutical compounds which now usurps all the time of our young medical students at the universities. Moreover, the collecting of the herbs was too laborious an occupation and proved less lucrative than the manufacture of artificial preparations, which yields large dividends. Consequently "herbs" were abandoned and nowadays even meet with contemptuous ridicule. Luckily all these adverse conditions cannot rob them of their intrinsic worth and virtue.

Since ancient times, and among all races of mankind, herbs have played the first and most important curative *rôles* in cases of disease, not merely by chance, but on account of their healing power, which could not fail to convince people. It appears to us as if the kingdom of plants, which directly or indirectly furnishes subsistence for all creatures, could alone also rescue them from the dangers of disease. Any one who has travelled much in southern countries, where the European races mix with the Negro or Indian, has often seen that in desperate cases, when the European physician had exhausted all the resources at his command, the Negro or Indian came to the rescue with his simple herb remedies just at the eleventh hour, so to speak, and saved a life otherwise lost.

Mr. Ebbard had a very remarkable experience himself, which may interest our readers. While on a scientific expedition in the West Indies he was obliged to stop for some time in the vicinity of a river which every morning was covered with a thick mist and impregnated the whole neighbourhood with its vapours. Mr. Ebbard, in consequence of these unwholesome conditions, soon contracted a severe case of rheumatism, which sometimes confined him to his bed for weeks, unable to move and suffering acute pain. He was not at that time conversant with Cantani's principle, or he would, undoubtedly, have helped himself and risked even exposure to the damp morning air. He, therefore, consulted all the leading medical authorities of the place, who, however, only helped to relieve him of his money, but not of his disease. One day, when once more he had to keep to his couch, a native peasant suggested his taking warm baths made of the leaves of the guava plant. In his despair he followed this advice, with the gratifying result that after the third bath he was able to move and walk again. When his medical adviser saw him the next day apparently quite well he exclaimed in amazement, "Que es esto?" ("What have you done?"). Mr. Ebbard told him of the baths, but the doctor seized his hat in disgust and left the room without another word; nor did he ever deign to call again. Outraged Science! Had this doctor possessed any common sense he would surely have been delighted at having come across this wonderful plant and would have added it to his "store of knowledge" for future use. Indeed a striking example of "*sancta simplicitas*"!

To-day there are still herbal experts, who, possessing an old herb book, make up prescriptions for suffering humanity, and, thanks to the marvellous results obtained, are besieged by the people as wonder-workers; not so much because they are much spoken of, but chiefly because they really help people. Should their clients be disappointed they would stay away and the herbalist's reputation would quickly wane. One need only call to mind the incredible success attained by the late Herr Springer, to whom patients came from all parts of the world, and whom even physicians visited, as proven by authentic documents. Shortly before his death the renowned Dr. Wagner consulted him; too late, however. Springer had only his herb-book and a large portion of sound common sense; these were the only sources from which he derived his wonderful cures. The herbs were probably well known to every druggist and chemist, but the secret lies in the selection and blending of the same—a secret which embraces the results of hundreds and even thousands of years' experience gained by former generations.

As regards the nature of the medicinal herbs and their effect, we may, probably, ascribe the latter to certain bitter principles which very likely support the alkalinity of the blood, thus adding to the combustion and elimination of the blood-poisons. In any case, all the mineral constituents of the herbs are offered in *organic* form and are, therefore, readily taken up by the blood—hence their beneficial action. They also contain certain alkaloids which gently stimulate the nerves and thus indirectly invigorate, and heighten the activity of the organs. On account of these alkaloids some nature-doctors condemn the application of the sanative herbs; unjustly, however. The stimulating properties of the herbs can only react unfavourably if they be taken in irrational excess. One-sidedness and exaggerations must always be guarded against; the best remedy extant, if taken immoderately, may become a poison in effect.

The purely practical purpose of our present effort has induced us to pick out but a small number of herbs, as we are of opinion that the recapitulation of the whole host would only tend to confuse and bewilder the lay-reader and render correct choice infinitely difficult. A good many herbs are of very little value, whereas some possess sufficient merits to replace quite a large number of inferior ones. We content ourselves with choosing the most effective ones, and will spare the reader the trouble of carrying any memory-ballast. The few herbs we shall presently discuss will prove amply sufficient for our principal task, which is: *clearing the blood-poisons out of the system.*

If health and well-being depend upon normal metabolism, it is obvious that, in any case of disease, our chief attention must be directed towards re-establishing normal metabolic functions. In the first instance, the reception of food, initiation of the assimilative process, and the expulsion of all waste matter resulting therefrom, must proceed without a hitch. The stomach, bowels, kidneys, skin, and lungs must be equal to their tasks. There is no disease which does not involve one or another, or at times even all, of these organs in some shape or form.

The stomach and bowels first of all, as a rule, become affected most severely, very frequently merely because the patient will at once rush for drugs and medicaments which act particularly unfavourably on these two organs. Cases of disorders of the stomach and bowels are, therefore, so strikingly numerous, perhaps more universal than any other disease.

The stomach, as it were, plays the part of the steam-boiler in the human organism—sluggish function of the former will quickly impair the power of endurance of work in the latter. Hence, whatever method of cure we may give precedence to, attention, primarily, should be paid to the action of the stomach and bowels, before any other complications be dealt with. Always endeavour to set those two organs right before trying to do anything else. In this respect the medicinal herbs are of invaluable help; even when collæmia of the digestive apparatus is diagnosed these herbs will furnish a powerful prop for our treatment, because the quicker the stomach regain its normal functional activity the quicker will the whole organism become capable of recuperating its power of reacting. We have, therefore, compounded from the old herbals a tea which, in the first instance, exercises a most beneficial and salutary action on the stomach and bowels, as well as the liver and kidneys. It consists of *Herba Centaurii Minoris*, *Herba Cardui Benedicti*, and *Melissa Officinalis*, which herbs are carefully blended. We have elsewhere—in "Will Power" and "Life-Giving Energy," for instance—had occasion to point out the virtues of this particular blend which we then called—

Erythraea. Centaurium

Blessed Thistle

"Balm"

TONIC TEA

on account of its invigorating, blood-purifying, digestion-assisting and appetite-stimulating properties; we have no reason to go back on our word, and, therefore, shall retain the name "Tonic Tea" in our present effort and always refer to this specific blend as such. It may be regarded as the bed-rock for the treatment of almost every disease; an exception should only be made with inflammation of the kidneys, in which case its diuretic action might lead to hyper-irritation of these organs.

The tea should be taken without sugar or any other substance, it being a very rare occurrence that a stomach is so weak that it cannot tolerate this tonic on account of its bitter taste; in cases like these one need only take the precaution of making a very weak infusion at first; even the weakest stomach will then support it with comfort. Occasionally the action of the tea—or the copious excretions of urine produced by it—is so strong that a slight feeling of itching and burning in the urinary organs, rarely affecting the skin, is experienced; here, too, a weaker infusion should be taken, but it is not necessary to abandon the tea altogether. We know of numerous people who, having experienced the beneficial effects of this tea, continued drinking it even after they have cured the distemper which induced them to give it a trial, as its use helps to guard against relapse and becomes quite a habit, the encouragement of which will not fail to receive its health-maintaining reward. Considering the enormous quantities of beer, wine, coffee, tea, and other more or less poison-containing drinks which millions of people are in the habit of swallowing every day to the eventual detriment of their bodily welfare—would it be asking too much if we pleaded for the acquirement of one more little habit for the benefit of health, namely, the habit of taking a small cupful of this herbal health beverage regularly every morning immediately after rising? We are sufficiently broad-minded to admit that modern social life may at times draw us into some form of excess the effects of which are brought home to us on the morrow but too painfully clearly—or shall we say hazily? Here again, Tonic Tea, being no moralist, renders ever-effectual aid. Putting levity aside—we do not desire to indulge in too extravagant a panegyric, and must emphatically state right here that Tonic Tea alone is no panacea for all disorders and diseases, the mainstay of our "cure" being a rigid dietetic *régime*, failing which even Tonic Tea can only act symptomatically, as fresh unwholesome and injurious matter is continuously being conveyed into the system.

How to prepare Tonic Tea

To prepare the infusion, take a good handful (about an ounce and a half, or 40 grammes) of "Tea" for every half-gallon (or 2 litres) of cold water. The water and tea are set on the fire and allowed to boil up once or twice, the vessel being preferably an earthenware one, or an enamelled pot—in the latter instance the enamel must have no cracks, as the Tea should under no circumstances come in contact with metal. It would be as well to purchase a new pot, and keep it solely for this purpose. After boiling, the tea should be permitted to infuse for 2¼ hours. The infusion is decanted off through a strainer into another close earthenware vessel and set in a cool place. In the Summer only half of the above quantity should be infused, as the tea quickly turns sour in warm weather. Upon rising in the morning, warm a teacupful of the tea, and drink slowly, half a cup at a time The tea must not be taken cold. Although it tastes certainly very bitter, we must repeat—***no sugar should be taken with it;*** the bitterness must be endured for the sake of the uncommonly beneficial effects the tea produces. Should the bitter taste of the tea prove too absolutely repugnant, suck a peppermint lozenge after drinking it.

HEALTH TEA

The principal constituent of our Health Tea, which name we have coined merely to distinguish it from Tonic Tea, is Milfoil (*Achillea Millefolium*), which is one of (if not *the* best) the most beneficial herbs known to us; in fact there is scarcely any other herb which combines in itself almost all the virtues of the others—indeed, it would be difficult to over-estimate its value.

Famous scientists and physicians—men like Weber, Lessing, Stahl, Hoffmann, Schilling, and others—speak of it in the most favourable terms. These authorities testify to the curative properties of Milfoil in a number of diseases, such as female troubles, excessive hæmorrhoidal bleeding, blood-spitting which threatens to develop into consumption, colic-pains, anæmia, intestinal catarrhs, diarrhœa, twisting of the gut, convulsions—particularly with simultaneous fatigue of the abdominal nerves (for instance, in hypochondria)—intermittent fever, digestive disturbances, accompanied with morbid secretions, abnormal wind and acid formations; in cases of congestion accompanied by palpitation of heart, in all diseases originating in the mesenteric circulation, also in cases of malignant ulceration. There are numberless cases of successful treatment with this herb, which, in fact, acts on *all* organs in a most salutiferous manner. We therefore, unhesitatingly impress upon every sufferer the wisdom of drinking Health Tea.

Whereas the Health Tea may be drank whenever desired (but only outside of meals), only one cup immediately after rising in the morning, and peradventure another one just before going to bed, of Tonic Tea should be taken.

How to prepare the Health Tea

Pour two pints of boiling water on half to one ounce of the tea and let it infuse for about half an hour—then strain it and treat in the same manner as Tonic Tea. The Health Tea may be taken with a little sugar and milk, but even without these the taste is not unpleasant.

DR. KELLOGG'S FOODS

Dr. I. H. Kellogg is practically the originator of the physico-dietetic method of treatment in America, and Superintending Physician of the largest and best-equipped Sanatorium in the world, at Battle Creek (Mich.), which possesses magnificent laboratories.

Dr. Kellogg has exceptional experience in treating internal diseases ; is the inventor of electric-light baths, and well known to the reading public. This gentleman is an enthusiastic adherent to the natural method of living and curing disease. He condemns flesh-food and all medicine-poisons and drugs.

Merit is chiefly due to him for having reformed vegetarianism by recognising its shortcomings and endeavouring to obviate them. He recognised that enormous quantities of vegetable-foods had to be ingested, in order to gain the requisite amount of albumen, at the risk of overstraining the digestive apparatus, and he, therefore, directed his efforts towards finding means to gain the standard amount of albumen from lesser quantities of food-stuffs, *i.e.*, utilising the vegetable food-stuffs to better advantage. Dr. Kellogg succeeded in this respect by making preparations of nuts, which latter contain a higher percentage of albumen than any other vegetable. In their natural or unprepared state, however, they are not very readily digestible and are largely prone to produce flatulency. The learned gentleman succeeded in finding a means of preparing nuts which negatived these drawbacks, and his nut preparations may now be regarded as an equivalent substitute for meat. These preparations, together with bread and fruit, will suffice, even in small quantities, to feed a human being normally, and to keep him in every respect, mentally and physically, fit.

Through these innovations Dr. Kellogg may be regarded as the founder proper of *New-Vegetarianism.*

In confirmation of Dr. Kellogg's great achievements we think it particularly apposite to quote Dr. Albu's remarks on the matter, whom we have already mentioned as a decided opponent of vegetarianism. In his work "The Vegetarian Diet," he expresses himself as follows: "By way of appendix I should like to briefly draw attention to a very remarkable phenomenon of vegetarianism which, in a most characteristic manner, illustrates the fact that the most intelligent of modern vegetarians have already, consciously or unconsciously, felt and recognised the physiological insufficiency of their mode of nutrition. Vegetarianism appears to be in a transitory state, which indicates an endeavour in the direction of improvement of the nutritive supply.

"During the last ten years vegetable foods have been placed on the market in artificially prepared form (a movement which emanated from America [Dr. Kellogg]) which improved their utilisation in the intestinal canal very considerably. These artificial preparations (of course a violation in themselves of the fundamental principles of 'natural food') do away with the chief physiological fault appertaining to vegetable food-stuffs, viz., the impairment of the absorption of the nutrients by the indigestible cellulose parts enclosing and permeating these. These artificial preparations deal chiefly with cereals, and, above all, nuts. The latter are ground up, becoming thus more easily digestible nutriment. These products, in the preparation of which Ground Nuts, Hazel Nuts, Almonds, &c., are used, have received the names of 'Protose' and 'Bromose.'

"The idea of these artificial food preparations is to specially improve the utilisation of the vegetable fat, which may be capable of partly equalising the deficiency in albumen of the vegetarian fare. The cereals are used with a similar intention, a specially prepared kind of flour being produced in which the albumen-containing gluten is finely divided, and this is used chiefly for biscuits. These preparations have been named 'Gluten,' 'Granola,' and 'Granose.'

"Through the introduction of these foods, Vegetarianism for the first time seriously enters the field of rational nutrition—a decided step forward."

For our purposes—*i.e.*, the Anti-Collæmic Radical Cure—we need merely at present take into consideration the nut preparations as a substitute for meat, and of these only "Protose," "Hazel-nut Butter," and "Almond-nut Butter." As regards "Ground-nut Butter" we, on the contrary, have to warn our readers against its use, because the ground-nut is not a nut proper, but in reality belongs to the pulses, which, as we have seen, directly encourage the formation of uric acid.

Thus he who would eat nut-butter should restrict exhaustion. Our own feelings and well-being will always furnish a fairly reliable control. The feeling of well-being, good-humour, cheerfulness and buoyancy, are the immediate resultants of our mode of living and the diet we here advocate. These sensations must be carefully preserved; we must always retain the feeling of energy and working power; and in pursuing our daily duties and calling one should not become permaturely fatigued and "played out." As soon as the latter becomes the case, a somewhat increased amount of nourishment should be admitted. The pleasure one takes in one's work is a fairly good gauge of the quantitative efficiency of feeding. Only in certain cases—for instance, nervous derangements, lung disorders, and diabetes—should loss of substance be carefully guarded against.

You should never have the feeling of a distended stomach —the sensation of fulness—when, or after, eating. We know there are a good many people who never feel sated unless, to put it vulgarly, they have "filled themselves up." Should they be unable to overcome this "bad habit," they may make up their imagined deficiency by light green vegetables—but never meat, bread, potatoes, or even milk or other liquids during eating.

It is, admittedly, extremely difficult to make precise and well-defined stipulations as to relative quantities, because so much depends on an individual's constitution, on the one hand, and the amount of physical or mental work to be accomplished on the other. Under ordinary circumstances, however, we are of opinion that 600 to 700 grms. (say 1¼ to

1¾ lbs.) of solid, and 1,500 to 2,000 grms. (3–4 pints) at the outside of liquid food are amply sufficient for normal nutrition during twenty-four hours.

2. *Husband the oxygen for the combustion of the toxic products of metabolism: this is the cardinal principle of the Anti-Collæmic Radical Cure.*

The oxygen is the great cleanser and purifier in the economy of our body. Through it all waste matter of the albuminates are burnt up and our blood remains pure and healthy. According to Cantani, we need only avoid fat, sugar, and farinaceous foods to gain this desirable end. These three prohibited substances furnish the material for the development of heat and consume most of the oxygen, thereby leaving an insufficient amount for the beforementioned purpose. One need by no means fear that the suppressing of these foods will entail too great a loss of bodily heat; the permitted food-stuffs contain ample heat-producers, and our prescriptions will only help to avoid the absorption of an unnecessary surplus amount. Cantani, as will be remembered, remarks that the importation of a moderate quantity of albuminous bodies will force the organism to utilise them also as heat-producers, thereby burning them up still more completely.

3. *Eschew most rigidly all acid*

(acid foods, acid fruits, acid wine, beer, cider—except as cider-whey—all salads made with vinegar, &c.). We know that all acids directly encourage the formation of uric acid and generally heighten the acidity of the blood. Acid blood is diseased blood, which yields a ready soil for all diseases, chiefly infectious diseases. Contrary to the acid blood is the alkaline blood, consequently

4. *Give preference to all those food-stuffs, such as vegetables, plants, and herbs, which, on account of their constituents rich in alkalis, increase the alkalinity of the blood. Alkaline blood eliminates all blood-poisons and morbid matter.*
5. *Under no circumstances take more than three meals per diem.*

Apart from breakfast, dinner (or lunch), and supper (or dinner), no other meal whatsoever should be taken. This is particularly essential in cases of weak and bad digestion. You should allow your stomach as much rest as possible by lengthening the intervals between meals. A small number of meals is also of advantage to the excretory organs, affording them scope for performing their duties effectually and thoroughly, which is rendered difficult be they continually overloaded with fresh work. To use an illustrative metaphor: in the case of turbid water the suspended particles more quickly become quiescent and sink to the bottom if the liquid be permitted to remain at rest. Dr. Dewey's great successes, as the reader may be aware, were largely due to his restriction of the number of meals (the "no-breakfast plan" to wit).

6. *Eat slowly and masticate thoroughly. The longer the food remains in the mouth and is well insalivated, the less work it will impose upon the stomach.*
7. *Never drink whilst eating, but allow an hour and a half or two hours to elapse before doing so.*
8. "*After-dinner naps*" *must be deprecated; a little rest does not hurt—but don't sleep. Do not eat during the three hours before retiring to bed.*
9. *It is as well to avoid taking food when suffering from excessive fatigue or immediately after laborious work or great excitement—as at these periods the stomach and digestive apparatus are not well fitted to perform their offices.*

During a period of very hard work it is, therefore, as well to eat but little, even at the risk of losing some flesh; by and by the loss of flesh is easily recouped.

MENU I

OF THE ANTI-COLLÆMIC RADICAL CURE

Elimination of the Blood-poisons by means of Heightened Oxidation, i.e., *economising the Oxygen by suppressing the Fats and Carbo-hydrates*

First Stage of Heightened Oxidation

IMMEDIATELY on rising drink a cup of Tonic Tea, as we have before described. About half an hour later :—

BREAKFAST

Between 8 and 9 o'clock

Tea, coffee, and cocoa must be avoided, ***absolutely.*** Have a plate of porridge, or Quaker Oats prepared, which have a very beneficial action on the bowels without over-irritating them—like whole-meal bread, for instance. Porridge or Quaker Oats are preferable to ordinary "fine" oatmeal gruel, which has a constipating effect, and subjects to that disorder should avoid it carefully. A very small quantity of boiled milk is allowable with this dish, but we prefer the use of good, pure honey, stewed apples or plums, but with very little sugar added. The apples should be stewed, peel and all. This is quite sufficient for breakfast, and it is the only mealy or farinaceous food permitted. An alternative to this is a cup of Apple Tea, with just a little sugar (or, better, honey) and milk. With this you may eat a small roll (or bread) and butter, but not exceeding 2 ounces. As the stomach is best fitted in the morning for vigorous activity, after a long night's rest, just this meal may be made somewhat plentiful, therefore a little cold meat or fish may be taken with the roll and butter, and certainly radishes and watercress are most recommendable.

Even when travelling take a sufficient quantity of Apple Tea with you. "Snacks"—to use a colloquialism—between breakfast and the midday meal, be it lunch or dinner, must be abstained from. At 10 and 11 o'clock take a small cup of Cider-whey. Should this quantity cause some inconvenience, take half a cup, or even a quarter, every half-hour. Cider-whey may be made of either non-alcoholic or alcoholic cider.

DINNER

Midday (between 12 and 1), or late (between 7 and 8 p.m.)

Avoid soups, particularly if you be inclined to obesity. These are frequently responsible for diluting the gastric juices and producing an unsubstantial chyle, and impairing digestion. For a similar reason drinking with meals is prohibited; a preference, therefore, should be given to solid foods. Those who find it too difficult to break themselves of the habit, should take no more than a quarter, or at the outside a half, plate of soup. We have already expressed our opinion regarding beef-tea or *bouillon* as containing hardly any nutritive value, but only some stimulating properties. The weaker it is the better, except when made of Bovril, which is useful as a nutrient.

One should avoid using macaroni, vermicelli, bread, flour, &c., in preparing soups; use instead vegetables, onions, &c.

The meal should chiefly consist of meat and vegetables, preference being given to white meats; but pork should be eschewed altogether. Fowl and game are recommendable, even if the flesh of the latter be dark. Brain is very wholesome on account of certain properties which are of great importance to the nerve-substances. Meat should neither be baked nor boiled, but grilled or roasted; in the former case (baking) the meat becomes covered with a thick coating of fat, which even the strongest stomach cannot attack with success; and in the latter (boiling) only practically valueless meat fibres survive the process. In this connection Dr. Kellogg very cogently remarks: "It is easier for water to penetrate tarred boots than for the gastric juice to penetrate a coating of fat."

The digestion of fat is retarded till it reaches the bowels, where it takes place with some difficulty. All fat and, above everything, all sauces and gravies, must be severely shunned as veritable poisons. Before cooking the meat, therefore, all fat should be removed. Fat consumes more oxygen than sugar or farinaceous food, and of all foods must be the most emphatically condemned. We have, after a long experience, been placed in a position to state that the more perseverance the patient exercises in avoiding fats of every description the sooner will he reach the consummation of the cure. Never eat more than about half a pound of meat for dinner. Be the appetite very great, a small *entrée* of *boiled* (please note, *only* boiled) fish may be introduced, or in its place boiled calves' feet or cow-heel. Of vegetables, eat principally spinach, and spinach again! The others follow in this order: Brussels sprouts, savoy cabbage, cauliflower, winter cabbage, green (French) beans, very tender green peas, sweet corn, turnip-tops, and vegetable marrow (without sauce). All these vegetables act favourably on the excretion of uric acid. Pulse should be rigidly excluded. Green leek, asparagus, and celery, cooked instead of in salad form, are recommendable. As a change mushrooms may occasionally be introduced. It is as well, however, to exercise a certain amount of caution as regards mushrooms and asparagus, seeing that Haig has found them to contain xanthin. The vegetables are only of real use if properly prepared, *i.e.*, not "boiled out" too much, because then they lose all the valuable nutritive salts. When using vegetables such as endive, lettuce, Roman salad, &c., for salad purposes, not vinegar, but lemon-juice, and only very little pepper, should be employed. Better even than this is to use these vegetables without any dressing whatever, but with only a very small quantity of salt. Potatoes should only be partaken of in scanty quantities. Bread should, if possible, be avoided, or at least reduced to a minimum not exceeding 1 ounce; the quality or brand is then of minor consideration.

"Sweets" had better be eschewed altogether, though small quantities of stewed apples (with the peel) and plums with very little sugar may pass; otherwise only raw fruit—provided it is well tolerated by the stomach; and the following, though in small quantities, are recommended: Apples (with peel), melons, peaches, apricots, grapes, oranges, and bananas. Those who cannot support raw fruits may partake sparingly of the dried varieties, such as figs, prunes, raisins, &c., preferably stewed, but with very little sugar. Those afflicted with a weak digestion should always exercise great caution in partaking of raw—and most particularly of acid—fruits. Dr. Kellogg tells us that vegetables and fruits taken simultaneously engender an insufficient, if not even injurious, composition for those people who suffer from retarded digestion in consequence of dilation of the stomach, sinking of the stomach, and hyper-acidification.

Radishes are highly recommended. Cucumbers are admissible—but *not* in the shape of gherkins or pickles.

Almonds, nuts, and dates are allowable in small quantities. Figs promote the movement of the bowels, and may be used by those inclined to costiveness. Sleeping after meals is, as already mentioned, unwholesome; those who have contracted the habit should fight against it with all their might, in which respect Suggestion will prove a valuable adjuvant. Only very aged people may indulge in this luxury, which even then should be of brief duration. The coveted but treacherous "afternoon's cup" of ordinary tea must be ruthlessly forbidden, but its place may be taken by Apple Tea of equally pleasant and scarcely distinguishable difference of flavour, but of distinctly salutary effects. About 3 o'clock the drinking of cider-whey may be resumed.

Those who think they cannot go without eating until the evening's meal should make a slight alteration in our suggested menu, by leaving out fruit from their midday meal, eating it, instead, between 4 and 5 o'clock. Moreover, we wish to recall that fruit and vegetables do not blend very well, more especially in people with weak digestions. When eating fruit in the afternoon, the melon, if in season, should be favoured, as it is particularly rich in nutritive salts; it may be followed by about ¼ ounce of bread and butter, radishes and watercress. Always bear in mind—*moderation.* Should neither of the latter be in season, dried fruit, if prepared as above described, may be substituted. Between this—by us reluctantly granted—meal and supper, or late dinner (as the case may be), cider-whey in small quantities may again be taken.

SUPPER

Between 7 and 8 p.m.

(If you use the foregoing Bill of Fare for late dinner, then this supper must take the place of lunch, between 12 and 1 p.m.)

Supper, or late dinner, should not be later than between 7 and 8 o'clock, as otherwise it may collide with the night's rest. The process of digestion (occupying from 2 to 3 hours) must be brought to an end before retiring. Seven o'clock is the best time for supper, and you may then safely "turn in" between 10 and 11 o'clock. The evening meal should be carefully composed of easily digestible dishes. A small roll—not more than 1½ ounces—with very little butter, some lean ham (without any fat), cold meat or fowl and plenty of watercress (as a change: sardines, caviare or oysters in small quantities).

As a further change: boiled calves' feet, brain or sweetbread, either as fricasse or baked in a little butter. Fricasse of chicken is also digestible. Care should always be taken that none of these dishes be fat or mealy. Salted (or pickled) meats should be avoided.

A light fish meal will likewise relieve the monotony, but no smoked fish is permitted, as that variety is generally too fatty.

The quantity of meat foods (including fish) should not exceed from 4 to 6 ounces.

White bread is preferable to breads of the whole-meal species, in which the husks are prone to over-irritate the mucous lining of the bowels, thus occasionally even aggravating constipation, where it exists.

Also with the evening meal (or lunch) take plenty of radishes and watercress.

A quarter of an hour after this repast the yolk of an egg (*without* the white) should be taken *raw*. The yellow of the egg contains valuable principles which benefit the nerve-substances and greatly assist the assimilative process of the other food-stuffs, as demonstrated by Drs. W. Cronheim and Erich Müller.

BEVERAGES

As already mentioned, no drink should be taken when eating. Those who absolutely cannot discontinue the practice may partake of one small glass of light, non-acid wine. (Vöslauer)

A light white wine, preferably with seltzer water or Apollinaris, may also be drunk at social functions, or when refreshments cannot very well be withstood. A good cognac-brandy or whisky with mineral water (not "soda") taken very occasionally in small quantities will likewise do no harm.

Beer, however, should not be touched at all during the treatment; it is a uric acid producer of the most depraved character. The ordinary cider also should be kept at a distance on account of its acidifying nature. This, be it understood, refers to cider proper, which has entirely different qualities to cider-*whey!* Sweet, unfermented, non-alcoholic cider, *i.e.*, fresh from the press, is a good-natured beverage, but not frequently met with nor obtainable. ([illegible] !?)

Those who insist upon warm drinks should help themselves with seltzer water. Cold seltzer in quarter or half glass (or cup) of hot wine, hot tea (very weak) hot lemon-water, hot milk, &c., or even pure hot water, gives an excellent warm drink, which is very palatable and refreshing. Better than seltzer, however, are the various mineral spring waters which we mentioned before. The large amount of carbonic acid contained in seltzer is prone to dilate the stomach, and may in time act injuriously. Those who suffer from stomach troubles should bear this in mind.

We all should remember, however, that too copious an imbibition of liquids should be avoided, and their quantity reduced to a minimum; Dr. Lahmann has shown us that liquids taken in excess are just as conducive to a dysæmic condition of the blood as injudicious and incorrect solid food ingestion. Too much fluid also (increasing the blood column) overtaxes the heart, blood circulation, and metabolism.

MEMORANDA

Immediately before going to bed we advise every one to take a warm (not hot) foot-bath, using a pure soap liberally. This is of particular benefit to aid the activity of the skin of the extremities at night.

After that drink a cup of *Health Tea* (*vide* page 165). All other means, procedures, &c., are superfluous, or at least only of secondary consideration. The above diet is the basis for the process of the anti-toxic blood regeneration, which goes to the root of every evil. Of course we should not neglect any such accessories or adjuncts as will assist this process. We have frequently laid stress on the importance of muscular activity in aiding and stimulating the metabolism, thereby encouraging the elimination of morbid deposits; exercise, however, should not be one-sided nor over-fatiguing. Moderate "constitutionals" and exercise in the open air are recommendable at all times, but in order to avoid the exercise of only a limited set of muscles the daily regular practice of indoor gymnastics should be pursued, thereby recruiting the entire muscular system.

When speaking of indoor gymnastics we once more wish to recall to the reader's mind that the sundry physical developers, dumb-bells, also weight-lifting, and other forms of *powerful* physical development should be approached with great caution. These forms of exercise are really only for the healthy and those primarily adapted and physically efficient—though, perhaps, undeveloped—individuals. The invalid should not regard exercise as a means of developing strong muscles; what he wants is salutary exercise to promote a healthy circulation and to keep his condition fit; he should not train for strong muscles, but simply to keep in training; this can be accomplished without any appliances whatsoever, but should the subject insist on them then let them be very light apparatus. The neurasthenic—the man with the exhausted nervous system—had better abstain from any appliances. His nerves require *rest*, not *excitation*, which accompanies any strong muscular effort, and even outdoor games, particularly cricket, football, tennis, hockey, lawn tennis, &c., should be abandoned, at least for the time, by him. The nervous subject should even resist brain-absorbing indoor games, such as chess, complicated card games, and literature of too erudite a nature.

We make a special point of this matter, seeing that the trend of the times is rather towards *overdoing* what is in itself an excellent thing. What is a boon to the healthy individual may in this case have the very contrary effect upon the neurasthenic. Even the leading popular journals on physical development and rational hygiene do not now advocate over-development of muscles, but insist upon exercise for the sake of promoting health. Our readers

ADDENDUM TO MENU I

Menu I. is a very mild one, so to speak, and still makes certain concessions, which, in later menus we will have to withdraw. But he who carefully adheres to it, having absorbed its fundamental principles, will already, within four to five weeks, experience extraordinary results, provided, of course, his blood be not too heavily loaded with blood-poisons, and the experiment of the capillary reflux of the blood be still pretty favourable. A few days will suffice to make the beneficial action of the cure noticeable, both in chronic and acute disease symptoms. Those who have followed our discourse closely will readily comprehend that the appearance of a boil or ulcer, for instance, or in cases of toothache, headache, or nervous pains, or in an attack of gout or rheumatism, &c., the dietetic purification of the blood will lend quicker and surer succour than any specific drug, bath, or massage; for none of these things can remove the cause of the disease, nor *cure* it, in the correct sense of the word.

In all chronic disorders where the capillary reflux takes place within the period specified on pages 85–87, Menu I. will prove sufficient to meet the requirements of the case; it can be taken up immediately and does not require a preliminary, modified style of living. This Menu will be found most beneficial in all complaints due to collæmia and most disorders—save those of a purely anatomical, mechanical, or structural nature—are in the last instance traceable to a collæmic condition of the blood. There are, however, numerous cases of constipation, for instance, caused by mechanical obstructions, say inflammation and swelling of the prostate gland, which in this condition presses heavily on the rectum. Collæmia plays an important part in swellings of this class, and by combating it we may indirectly succeed in removing the mechanical cause of the constipation. Several such cures, in fact, are on record.

Menu I. has a prominent, curative effect, principally in all metabolic diseases, first of which are gout and rheumatism, then obesity, scrofula, anæmia, blood-diseases, &c. Diabetes, it should be specially stated, requires certain modifications, which will be further discussed presently.

Most derangements of the digestive system are chiefly based on collæmia. Splendid results will be achieved by following Menu I. in all affections of the stomach, bowels, liver, kidneys, &c. But it must be remembered that disorders of the digestive apparatus are in most cases of long standing and consequent stubbornness, particularly when drugs and medicine-poisons have been administered largely and indiscreetly. People will at once rush to medicaments whenever something is wrong with their digestion, and this, in consequence, suffers first of all. The abuse of aperients, for instance, is most alarming; the bowels become over-irritated to such an extent that relaxation (or atony) of the intestines and constipation gradually grow from bad to worse, resulting, finally, in one of the gravest chronic disorders known. Collæmia of the digestive organs is most difficult to combat, as the blood-poisons generally settle in them in very large quantities. The sufferer from such complaints should, therefore, exercise patience and perseverance in carrying out our Menu I.

Diseases of the bones, cartilages, heart and vascular system, irregularities of the circulation, diseases of the respiratory, sensory, and sexual organs are best cured by combating the collæmia which is mostly at the root of these evils. Say, for instance, the auditory organs become infected with blood-poisons, and earache, inflammation, and partial deafness set in: the patient hurries to a specialist, who examines him, but he knows nothing about collæmia. He (the specialist) will search for mechanical causes, and consequently prescribe ointments and injections, if he does not even go as far as to essay an operation of some kind. The consequence is that the disorder is only aggravated through these manipulations. But if we go further and try to recognise the factor which really caused the distemper and spells "morbid matter," we will at once know that by expelling the blood-poisons, we will cure the complaint.

One of the worst forms of collæmia, and one of far-reaching consequences, is brain-collæmia, *i.e.*, overcharging the nervous system with blood-poisons. Here we are confronted with the whole host of disease-symptoms which we collectively call *neurasthenia* and *hysteria*. In our treatises on "Will-Power" and "Life-Giving Energy (or Sexual Neurasthenia)" we have dealt at great length with this difficult problem, and although those two works are chiefly devoted to the treatment of neurasthenia and nervous exhaustion by means of psychotherapeutics, we, there, have already pointed out the all-importance of a physiological substructure of dietetic treatment on which to erect a system of psychotherapy which would eventually claim to be of value. As a matter of fact our present work, although appearing some time after our other two efforts, should be in the hands of the patient *prior* to our previous ones.

Our Menu I. will be found of great service in curing brain-collæmia, with its concomitant symptoms, particularly if used in connection with suggestion, as described in the two works just referred to; many cases of cure are on record by this treatment after the sufferer had vainly tried to find relief in all sorts of other treatments, baths, electricity, &c. According to Dr. Haig, a large number of cases of insanity and mental aberration is attributable to brain-collæmia. If that be the case, then there is still a ray of hope for those who have been considered hopelessly incurable for years. Alas! most specialists of brain-diseases know nothing of collæmia and its dietetic treatment.

We have already pointed out that the collæmic blood furnishes the best soil for the development of infectious diseases. Infections, therefore, will be best guarded against by purifying the blood. We expressly used the term *guarded against*, because when an infection actually takes place this in itself postulates the existence of a fairly large quantity of blood-poisons already in the system; and, indeed, in most of these cases the blood has become overloaded with morbid matter in the course of years of injudicious living. When such is the case, it would be absurd to expect a regeneration and purification of the blood in twenty-four hours, which, it stands to reason, must require time, often weeks and even months. Once an infectious disease has set in, the anti-collæmic cure may come too late, seeing that diseases of that class almost invariably make most rapid progress. Medicine-poisons, we are inclined to think, will prove still more impotent. During the rage of an epidemic, therefore, the best imaginable safeguard against contagion will consist in living "anti-collæmically."

MENU II

OF THE ANTI-COLLÆMIC RADICAL CURE

Elimination of the Blood-poisons by means of Heightened Oxidation, i.e., *economising the Oxygen by suppressing the Fats and Carbo-hydrates*

Second Stage of Heightened Oxidation

IMMEDIATELY on rising drink a cup of Tonic Tea, as we have before described. About half an hour later :—

BREAKFAST

Between 8 and 9 o'clock

One cup of Apple Tea, but *without any* sugar or honey and without milk. Roll or bread, not more than one ounce of either, with hazel-nut or almond butter. These "butters" may also be eaten with a small spoon, but not more than two or three small spoonsful. All the other concessions made in Menu I. must be withdrawn in this Menu.

No "snacks" are permitted until dinner-time (or luncheon).

At ten o'clock commence drinking cider-whey, as described in Menu I. The whey should be made of *alcoholic* cider, as the non-alcoholic variety contains too much sugar. This rule must be strictly adhered to.

DINNER

Midday (between 12 and 1) or late (between 7 and 8 p.m.)

No soups whatsoever are admissible. The main body of the meal should consist of meat and vegetables, in which respect follow the rules of Menu I.

The amount of meat, however, should be reduced and the equivalent made up by Protose, *i.e.*, if you reduce your amount of meat at dinner by one and a half ounces take one and a half ounces of Protose, thus eating six ounces of meat and one and a half of Protose. Every other day *in*crease the Protose by half an ounce and *de*crease the meat by half an ounce, until you have reached, say, three and a half ounces of meat and the same amount of Protose.

It may be argued that we might just as well suppress meat entirely and replace it by Protose. This, however, we are not prepared to do, as Protose contains a very high percentage of fat, which does not accord with our principle of oxidation. It is, therefore, very important to watch the effect of the Protose. Should the latter retard the cure—which can easily be tested by the experiment of the capillary reflux and the general state of health—its consumption should be reduced and the corresponding amount again be added to the meat supply. Those who favour a vegetarian diet may in time, if the Protose agree with them *well*, leave out the meat altogether and place Protose in its stead.

Protose can be prepared in a similar manner to meat, but for a change it can also be cooked with the vegetables. The requisite quantity of Protose is added to, and mixed up with, the vegetables after they have been cooked, but care should be taken that no more greens are cooked than are actually eaten, because otherwise you will eat less than the necessary quantity of Protose.

N.B.—We specially wish to state that in place of Protose the equivalent amount of *raw nuts* (ground up for individuals with weak digestion) may always be taken.

Salads and vegetables as per Menu I.

No bread at all is allowed.

No sweets whatever are permitted. In their place take plenty of radishes and watercress. Should these be unobtainable, replace them by an apple with the peel and a few almonds and nuts. Failing the latter, stewed figs, prunes, or apples may be taken, but *without sugar*.

For after-dinner sleeping note our remarks in Menu I.

Between dinner (or luncheon) and supper (or late dinner) nothing whatever should be eaten, but take cider-whey as per Menu I. Those who absolutely cannot endure going without some food during these hours may follow the advice given in Menu I.

SUPPER

Between 7 and 8 p.m.

The supper should be similar to the one delineated in Menu I., only graduate the meat consumption, as indicated, by partially replacing it by Protose (or nuts). Protose alone, instead of meat, but cooked like it, can also be taken for supper; or it may be mixed up with the vegetables which remain over from dinner.

If you eat vegetables for supper no bread at all is allowed; should you eat meat and no vegetables an ounce of bread may be taken. Again, whenever procurable, eat plenty of radishes and watercress (even when eating meat).

A quarter of an hour after the meal again swallow the yolk of an egg (*vide* Menu I.).

For beverages see Menu I.

Before going to bed take a warm foot-bath, then drink a cup of Health Tea, as mentioned in Menu I.

ADDENDUM TO MENU II

Menu II. is for those states of disease where the blood is very heavily charged with blood-poisons, the capillary reflux being very slow.

For very aged individuals, or persons of a very weak constitution, it would be advisable to live according to Menu I., say for a few days (a week being quite sufficient), before adopting Menu II.

Menu II. is applicable in all the diseases mentioned in connection with Menu I.; the former's effect, however, is considerably more striking and lasting. Thus a quicker result will be assured to him who lives up to Menu II., but very much depends in each case upon the amount of perseverance, energy, and will-power brought to bear upon the object in view.

The duration of the treatment, based on Menu II., depends, of course, largely upon the intensity of the complaint. Although patience is again required of the person whose disorder is of long standing or aggravated by drug abuse, the sufferer will soon experience relief and an improvement in his condition if he follow the rules laid down in this Menu conscientiously.

How to follow out the Anti-Collæmic Radical Cure in Principle

The foregoing Menus, if strictly followed out, necessitate that the patient be in his own household, or, at least, be absolute master of his time and able to direct the operations of the kitchen without being interfered with. Innumerable sufferers, however, live in circumstances where these conditions cannot be fulfilled. How many travellers and young people are dependent on restaurant or hotel fare, preventing them from carrying out the diet menus strictly! To all these we recommend their living up to the cure at least in *principle*—that is to say, observing the therapeutic fundamental principle underlying the Anti-Collæmic Cure in whatever they may be obliged to eat, thus avoiding all fats, sweets, farinaceous foods and acids, in principle, according to our rules. One can always carry a supply of Apple Tea when travelling or sojourning at an hotel, and will not have much difficulty in having it prepared, which, if it come to the worst, one can do for oneself.

Be this quite out of the question, then, of all greater evils, choose the lesser, by taking cocoa, but without sugar and milk. With this you may eat an ounce of bread, with plenty of nut-butter, which you can easily take with you; failing this, a *very slight* quantity of ordinary fresh butter may be used. More difficulty will be encountered with the cider-whey, which, however, is absolutely indispensable, and, in fact, forms one of the most important items in this cure.

We know of a good many people who, when travelling, take it with them in bottles, or, if occupied in business, take it with them to their office. In this respect each one must see how he can best arrange matters, and must exercise his own ingenuity.

At dinner let the soup pass, or, at least, take but four or five spoonsful.

Choose a lean piece of meat, roasted or grilled for preference; avoid "cooked out," valueless pieces; be fastidious in cutting away all fat; and do not take a drop of gravy or sauce. When taking ham, be very particular about removing the fat. Avoid sausages. You may take plenty of green vegetables, but only a very little of potatoes. If you have your nut-butter handy, mix a little with the vegetables, and you may reduce the quantity of meat accordingly.

Take green salads only, and if prepared with vinegar, very little, at the same time shaking the vinegar off.

Do not eat potato-salad.

Do not take bread.

Avoid the sweets, bread and butter and cheese, taking fruit, as specified, instead.

Should you be obliged to drink something, you may, if very hard pressed, take a small bottle of very light, white wine (neither sweet nor acid), but only one glass; avoid beer as much as possible, and never take dark beer under any circumstances, light Lager or Pilsner are not quite so bad, but only one or two mouthsful of them are allowable. One must have the courage to make certain sacrifices for the benefit of one's health, even at the risk of being laughed at as an eccentric. Eccentricity of this nature will have its own reward in due course and become a virtue.

Supper (or luncheon) does not present so many difficulties, as this meal can generally be arranged just to suit one's own wishes and requirements.

Both Tonic Tea and Health Tea can be easily taken with you when travelling, and their infusion will not meet with any great obstacles. They should, however, be freshly prepared, both in the morning and at night, and, in order to save the time of long infusion, as before described, a larger quantity of tea may be taken to abbreviate the operation.

CHAPTER III

THE ANTI-COLLÆMIC RADICAL CURE

Combustion and Elimination of the Blood-poisons through increased activity of the Heart, in consequence of a "Dry-diet," i.e., *Reduction of the Blood-column*

OUR fundamental principle in therapeutics, as described on page 131, takes for its criterion the fever as a natural healing process. This principle, however, applies to Menus I. and II. only in a limited respect, inasmuch as the process of combustion, in general, is not actually heightened by the diet, but only part of the oxygen is economised by dint of withholding the heat-producers and thereby assisting the burning-up of the blood-poisons.

A Dry-diet, on the other hand, produces a general increase of oxidation much more like fever. The most comprehensive principle in that direction has been demonstrated to us by one Schroth, a simple peasant, who instinctively grasped the whole nature of disease and arrived at conclusions very much like those of Haig and Cantani. Schroth makes vitiated humours and deposits of blood-poisons in the tissues, responsible for all diseases. Schroth was an acute observer and owed his discovery chiefly to experience, not to a scientific conception of the principles underlying his method of cure. He found that by withholding fluids from the food of his animals, horses principally, they would recover more quickly from sickness. His idea that, by excluding all liquids, the stomach was obliged to absorb the juices (including the bad ones) of the body, work them up and eliminate all morbid matter, was, of course, most naïve. Nevertheless, his achievements were great.

A true explanation of the Schroth Cure has been given us far more recently by several physicians, and, above all, by Dr. Hahn. According to his exposition, the blood-quantity and pressure is reduced, the heart relieved, and its power of suction increased, by withholding fluids. In consequence of the heightened activity of the heart, the blood-circulation is accelerated and morbid matter is stirred from the remotest parts of the body. The metabolic process is stimulated by the more powerful circulation, and heightened oxidation takes place, resembling, indeed, a feverish condition. Even the temperature may rise to 104° F. (40° C.) during the Schroth Cure. Dr. Hahn's argument is most lucid and convincing, and is as important for our purposes as Cantani's principle of oxidation.

Indeed, the Anti-collæmic Radical Cure culminates, and reaches its climax, in the Schroth Cure. There are no deposits in the body which the latter is powerless to move and eventually excrete; sufferers from even the most stubborn disorders need not despair of recovery until they have undergone this cure unsuccessfully. Still, there are certain well-defined reservations which must also be made in this respect.

We especially wish to state at the very outset that the Schroth Cure has very often been wrongly employed and applied, so much so that it has become discredited in the eyes of many who, consequently, condemn it outright. Lately, several nature-doctors have taken it up again, have changed its name into Regeneration Cure or some similar title. With its name, however, they have also changed its character; they have added to it, and taken away from it, not, however, to its improvement. The Schroth Cure, as we shall use it, is the original, genuine, unadulterated treatment, which is as grand in effect nowadays, as it was sixty years ago.

Before describing the Schroth Cure in all its rigid severity, we propose introducing a kind of prologue to it in Menu III., preparing the patient, as it were, for the imposing task in store for him in Menu IV. Thereby we shall also remove any slight element of jeopardy which might exist in changing too abruptly from the ordinary mode of living into the more than ascetic renunciations exacted by the Schroth Cure.

MENU III

OF THE ANTI-COLLÆMIC RADICAL CURE

Combustion and Elimination of the Blood-poisons through increased activity of the Heart, in consequence of the "Dry-diet," i.e., *Reduction of the Blood-column*

Third Stage of Heightened Oxidation

IN this Menu, as in the two previous ones, the scheme has been so arranged as not to interfere at all with the ordinary avocations of life. Sufficient nourishment is insured for the undiminished display of physical and mental activity; in fact, the working capabilities are increased as soon as the cure begins to take effect.

One should commence with Menu II., and strictly adhere to it for from eight to ten days. After that period gradually reduce all liquids; at first leave out the Tonic Tea and Health Tea in the morning and evening, and only retain the Apple Tea for breakfast.

Then reduce the Cider-whey (alcoholic) to one cup in the morning and one cup in the afternoon.

All other beverages must be abandoned, so that the liquid food (or beverages) per diem is reduced to—

1 cup of Apple Tea
1 cup of Cider-whey—in the forenoon
1 cup of Cider-whey—in the afternoon

beside, of course, the liquid constituents one naturally absorbs with, and those contained in, the vegetables and fruit.

For the rest, keep to Menu II. with all its rules.

Very much now depends in how far the withholding of liquids has a weakening effect. If physical or mental work is demanded of the organism, the imperative principle remains that the body be amply supplied with food and the tissues provided with the requisite volume of fluids. Lacking the latter, the tissues will refuse to act, and exhaustion and fatigue will primarily set in, to be followed possibly by symptoms of inflammation. The patient should, therefore, exercise vigilance that a proper balance be kept between work and nutrition, *i.e.*, that the supply of liquids be not seriously interfered with. As soon as you feel fatigue or weakness, you must immediately increase the quantity of fluids, but only by Cider-whey; the other alternative is to reduce the mental or physical work. We still maintain our theoretical contention *re* the suppression of liquids, but certain concessions have to be made when much mental or physical activity is demanded. When living according to Menu III., therefore, it is better to reduce work than to add to fluids. Moreover, we may point out that the mere fact of Menu III. being demanded in itself presupposes grave disease conditions in which work of any description is practically *a priori* an impossibility. For instance, in severe attacks of gout or nerve complaints the patient is quite incapable of working, and as soon as no such demand is made on the organism, the reduction of fluids, or indeed the "Dry-diet," can be arbitrarily rendered more drastic without fear of deleterious consequences. Even here exaggerations will manifest themselves by the appearance of undue fatigue and exhaustion.

As soon as reduction of the fluids is started, the activity of the heart is increased, and the general process of oxidation heightened. It now becomes necessary to assist the excretory activity of the skin, and that is best done by means of body-packings or compresses during the night.

To this end, a linen cloth is soaked in fresh water, well wrung out, and wound round the patient's body up to the armpits. Over this is placed a second *dry* linen belt of the same size, or possibly somewhat larger, so as to completely cover the first one. And lastly, the compress is completed by wrapping a woollen blanket or rug over the whole, and fastening same with safety-pins.

The patient is put to bed, well covered with the bedclothes up to the chin, and so left, with the compress on, until two hours before rising, when the body is well rubbed dry with a *dry* bath towel, and the patient remains in the warm bed for another two hours. The linen cloths when removed give off a pungent odour, in consequence of the morbid matter excreted by the skin; hence the cloths must be carefully washed and dried each day. Cold water is generally proposed for the compresses; the sudden shock, however, which this causes is most undesirable, particularly for nervous invalids; we therefore decidedly favour warm or lukewarm water, to avoid this shock, and we are of opinion that, at least for our purposes, it will be equally effective.

When the cure has accomplished its desired task, say after from four to six weeks, one may gradually resume one's ordinary manner of living, taking due care to increase the absorption of liquids but very slowly and gradually from day to day. By disregarding this caution you may run grave risks and endanger your health seriously.

The compresses, *provided they give off no more noxious odours*, may be discarded every other day, after, say, two or three weeks from the commencement of the treatment.

The experiment of the capillary reflux, and the general state of health, will eventually be sufficient indication when to discontinue the cure.

MENU IV

OF THE ANTI-COLLÆMIC RADICAL CURE

Combustion and Elimination of the Blood-poisons through increased activity of the Heart in consequence of a "Dry-diet," i.e., *Reduction of the Blood-column*

Fourth Stage of Heightened Oxidation

THIS Menu, which in effect represents the Schroth Cure proper, can only be followed out under certain stipulated conditions.

First of all, while Menu III. admits of one pursuing one's work, in the present fourth Menu *we must absolutely forbid strenuous work of any description, be it mental or physical.* The patient may take very moderate walking exercise, and may also be permitted to attend to any small business matters which do not tax his mental or physical powers; but *great moderation* should be observed even in these small duties, as this is merely a reluctantly granted concession, seeing that the inadequate supply of fluids to the tissues, when they have to exert themselves, is prone to endanger health, as before explained. This warning should be taken very seriously, as, had it always been followed, there would never have been any cause to malign the Schroth treatment. Unfortunately, some physicians, even, failed to recognise the importance and full significance of this irrevocable condition. For similar reasons all treatments for obesity which suppress liquids and simultaneously order fatiguing exercise, gymnastics, long walking tours, &c., are nothing short of menaces to life—and in very many cases lead to nephrorrhagia (bleeding of the kidneys).

The Schroth Cure requires a great amount of energy, and those who cannot summon sufficient will-power or are of a very weakly constitution, had better not start on the treatment at all. Very old people should not attempt it.

Sufferers from heart-disease, consumption (in an advanced state), disease of the spinal cord, diabetes, and cancer, should not undertake this cure. Sufferers from serious nervous breakdown had also better be chary of it, it being our experience that very few lasting results in such cases are obtainable. Nervous subjects will do much better by following Menus I. and II., and a judicious course of psychotherapeutics or Suggestion, as proposed in our book on "Will-Power."

The Schroth Cure consists mainly of a dry-diet, and the body-compresses, already mentioned in Menu III.

SCHROTH'S "DRY-DIET"[1]

The chief part of the Schroth Menu (*i.e.*, No. IV.) is a special "stale-roll" dietary, which is the peculiar and most characteristic feature of the cure. The patient is ordered to abstain from any drink and food save those indicated below. To satisfy hunger, he is allowed to eat *solely*, stale, dry rolls, as and when required: *absolutely nothing else. Much less is he permitted to imbibe any liquid whatever.* After he has lived thus for two or three days, he may, on the third or fourth day, drink a bottle (or, say, a pint or a pint and a half) of light, white wine—preferably good, unadulterated Rhine wine or Moselle. The wine must not, however, be taken cold, but slightly warmed. Only during hot summer months is it admissible, after first drinking two glasses of warm wine, to finish the rest cold. As the tartness of the wine becomes more noticeable when it is warmed, a very little sugar may be added. This one bottle of wine should be spread over the whole day. This "drinking" day should again be succeeded by two or three "thirst" days. During the whole of this treatment, the patient may consume as many stale rolls as he feels inclined for.

Such is Schroth's Cure in its most stringent form, which ensures the most rapid and complete results, and which we, therefore, would unreservedly recommend to all who possess sufficient will-power to follow it out; they will, indeed, be surprised at the swift disappearance of all pain, and at the incredible curative power of so simple a course of treatment. The immediate effect of the cure is that, next to the relieving cutaneous evaporations, promoted by the wet compresses, the urine takes a strikingly dark colouring, in consequence of the elimination of concreted matter by the kidneys, as soon becomes manifest by the decomposition of the urine, and the formation of a muddy sediment at the bottom of the chamber. In order to ascertain, therefore, whether such decompositions and precipitations take place or not (for they constitute a test of the action of the cure), the urine of the patient must, in each case, be left standing at rest for several hours. The more the body of the patient, by reason of his diseased condition, was charged with poisonous matter, the darker will be his water—which is, furthermore, a sign revealing the presence of an artificial fever, brought on by the cure, and serving to assist the expulsion of the morbid agents.

---

[1] Some parts of the Schroth Cure, as dealt with in the following, appeared in the treatise "Perpetual Health," already referred to. For a concise exposition of this cure we recommend a perusal of this work.

Adverse critics of Schroth's mode of treatment affirm that the dark colouring and highly concentrated condition of the urine is simply a result of the exclusion of moisture from the system: the enhanced concentration of the urine is, in their opinion, the necessary outcome of the fact that all liquid is withheld from the body, and there is nothing to show that it has anything to do with the elimination of health-destroying matter. This view is contradicted, however, by the circumstance that, provided the cure is rigidly adhered to, and the work of disembarrassing the body from unhealthy concretions duly proceeded with, the urine gradually assumes a *lighter* colour, and, indeed, eventually becomes quite clear and of a pale yellow or "straw" colour; and this invariably is an unmistakable sign that the process of recovery is sufficiently advanced to enable the further application of the treatment to be discontinued. If, as our opponents assert, the original high concentration of the urine were merely the effect of the non-admission of water into the system, the urine could never become lighter, no matter how long the treatment might be continued: on the contrary, its colour would deepen more and more as time went on. Besides, it has been observed that, after each "drinking" day, there forms a considerably thicker sediment in the chamber utensil than on the "thirst" days, whereas, surely, the reverse ought to be the case if the view of our critics were correct. The fact is that Schroth, after testing a variety of beverages, found out that white wine was the most effective medium for "stirring up" the accumulated waste matter and expediting its elimination. Vegetarians, principally, attacked Schroth on account of the wine, but they, and even the more modern ones, did not succeed in finding an equally efficient substitute.

What the dry-roll diet is primarily intended to do, is to keep out of the system any substances likely to add to the accumulated impurities with which it is already charged, so that all organs obstructed by such concretions may be left free to get rid of them without being hampered by fresh supplies of matter capable of hindering the work of purification. The patient should further take great care never, not even in summer, to be out of doors after sunset, much less to sit motionless in the open air after dark.

Where we have been able to enforce this drastic regimen, we succeeded in conquering the most stubborn complaints in some two or three weeks; the most violent rheumatic pains were relieved on the second or third day of treatment; attacks of gout would give way on the fourth or fifth day; a case of acute gonorrhœa was cured in twelve days.

Mr. Heubner relates his personal experience of the "thirst" cure in the following manner:—

"But one of the most remarkable cases, which once for all dispelled any doubts there might have been in my mind as to the infallibility of Schroth's method was one in which I was personally concerned. By standing on my legs for too long periods at a time I had developed an inflammation of a vein of my left leg—a disorder which, as is well known, is apt to prove very persistent and stubborn. I first treated myself in the orthodox manner with carbolic compresses and ice. For five long weeks I had been laid up, with an ice-bag tied to my leg, and after this the resumption of the habit of walking proved a very slow and tedious affair; for a considerable time I could only hobble about laboriously by the aid of a stick. Six months later I was attacked by a similar inflammation in my right leg. Horror-stricken, I was thinking of the never-ending trouble I had had in the previous case, when it suddenly occurred to me to try Schroth's Cure on this occasion, notwithstanding that I had but a very limited faith in its efficacy and was extremely doubtful as to its applicability to my case. By that time the venous inflammation had progressed so far that I was no longer able to walk. I, therefore, immediately commenced strictly to follow the stale-roll diet and the treatment with full-sized compresses, and behold! to my infinite surprise, I became able to walk before three days were over, and felt no pain in wrapping the compresses around my leg. On the eighth day the inflammation had completely vanished; the leg was painless even upon strong pressure being applied to the veins, while my walk had become easy and natural once more, so that the support of a stick was unnecessary. Friends and *confrères* would shake their heads dubiously on hearing my account of the matter; yet surely no human wisdom can supersede a man's own experience!

"Many—nay, most—people shrink from the hardships which this cure entails, partly because they find the fearful thirst intolerable, and partly, also, because they are deterred by the anticipation of the state of great weakness to which they must be reduced at the beginning of the treatment. Generally speaking, man is a miserably weak creature: he will sooner endure the most agonising pain, or passively submit to prolonged sickness and suffering than, by a spontaneous and resolute act of volition, deny himself any of his accustomed comforts or indulgences. 'What! am I to have nothing to drink; to renounce *beer?* How dreadful! Rather let me die a thousand times over!' With individuals so minded it is, of course, useless to argue.

"But there are patients who actually are so enfeebled and exhausted already by antecedent illness that it may not be safe for them to risk an abrupt change in their mode of living. Schroth, alive to this possibility, has accordingly divided his course of treatment into three stages: the *probationary* or *fore-cure*, the *main cure*, and the *after-cure*. During the fore-cure, the duration of which may vary between ten and six days, flesh-foods and drinks are discarded by degrees."

In place of this fore-cure we can introduce our Menu III. But where the patient is at all possessed of any power of reaction, he may always begin with the *main-cure* stage at once, for we have invariably found it unwise to waste so much energy on a preliminary process, knowing that all the strength available would be required in carrying through the cure proper. With regard to the *after-cure*, however—*i.e.*, the gradual return to the accustomed mode of life—the case is different; indeed, the *proper completion of this last part of the treatment is an absolute necessity*, in fact is *inseparable* from our method of healing; all the more so as, after the main phase, a ravenous appetite takes possession of the patient which, if unchecked, would impel him to devour anything that came within his reach. Hence it is essential that any tendency on his part to exceed the bounds of moderation should be strenuously resisted. At no time during this period should he be allowed to drink more than half a bottle of wine daily, while, to begin with, he can only be given the most digestible meat dishes and vegetables that are procurable. People who disregard these earnest instructions may gravely endanger their lives. Many convalescents, who after long privations thought they would make up, so to speak, for lost time, by excesses in eating and drinking, had to pay the penalty of their indiscretions almost with their lives.

The after-cure is not to be entered upon until after the urine has taken a light colour and is found to undergo no decomposition nor to form any precipitates after standing for twenty-four hours. Besides, the patient's tongue must be quite clean and red. At the beginning of the cure the tongue becomes thickly coated with a fur which frequently assumes a greenish-brown hue, and which does not depart until the mucous membrane of the stomach has entirely reformed. Neither the furred tongue, nor the other concomitant phenomena of the early stages of the cure, such as eruptions, colic, nausea, diarrhœa, &c., need cause the patient the least alarm. In many cases these morbid manifestations become worse during the first few days, the whole system being, in point of fact, revolutionised, and preparing for an energetic reaction. The most favourable sign of the efficacy of the cure is the appearance of diarrhœa not later than in the course of the second week. This is always characteristic of the main phase of the process of purification. None of these phenomena in short, formidable as they may appear, need frighten the patient. An upheaval of this kind, though a necessary precursor of an improved condition, is generally worse than the old disorder from which relief is sought. The period during which the accumulated concretions of morbid matter are first broken up and moved is a time of trial which, to the patient, may appear considerably worse than his previous condition; for not until after the regeneration of the blood has begun can the newly-acquired, healthful forces exercise a preponderating influence.

Patients who are too enfeebled or lacking in energy may be allowed to have some boiled oatmeal, pearl barley, or rice for dinner. Rice is given preference, as it will be found that patients can eat it pretty regularly without tiring of it. The rice is once or twice scalded with boiling water, and then put on the fire, hot water being slowly added until it swells out and becomes tender. The grains should not, however, be allowed to boil to a mash, but must remain whole and quite dry. Asparagus-water, if procurable, is even better for this purpose than ordinary plain water, as the former exercises a more energetic action upon the excretory functions of the kidneys. Also during the after-cure asparagus and asparagus-water should be freely partaken of. Schroth, however, did not know of the remarkable effect of asparagus upon the kidneys. The rice, prepared in the manner described, and given to the patient every day for dinner, or in the case of very weak individuals, also for supper, will render the hardships of the treatment far more bearable; but, of course, it will also retard the result somewhat. Those, however, who support the cure well, should take one dish of rice *only*, on the "drinking" days; this will not interfere with the treatment at all. Where the patient finds it absolutely impossible to swallow the dry bread by itself, he must needs be allowed to take a mouthful of white wine with it. But in no case can the dry rolls be allowed to be dispensed with altogether, or entirely supplanted by rice dishes, as they constitute a first-rate absorbent and serve to free the body from mucus. The solution of the mucus forms one of the striking features of this cure, and the amount of sputa which a patient sometimes brings up is perfectly astounding.

The worst part of this cure, and that which has such a deterrent effect upon most people, is the tormenting thirst by which it is attended, especially at the outset. To relieve the torture somewhat, a wet compress may be placed round the abdomen, and this can be retained all day, and in the summer the patient may even wear it out of doors. Persons whose blood contains a large proportion of uric acid must be prepared to suffer more from thirst than others; but in proportion as the uric acid becomes eliminated, the thirst becomes less trying. After one week's treatment it has, generally, become fairly endurable.

He who follows out the cure strictly will bear us out that we can justly call this treatment a *Rejuvenating Cure.* Not only does it eradicate the disease, as such, but all the organs —and particularly the organs of the senses—derive from it an accession of energy and strength.

The Schroth treatment may be undergone at home without any medical assistance. But we are aware that it often requires an enormous effort to carry out the treatment consistently at home, where the other members of the household will continually tempt the patient in regard to food and drink. And worse still is the horror and misery of the family circle when the early effects of the cure become noticeable. The patient visibly loses flesh (at the rate of from 1 lb. to 2 lbs. daily during the first few days), becomes pale and weak, and is urged on all sides to give up "so insane" a course of treatment. It therefore happens, not too rarely, that patients give up the cure in deference to such pressing objurgations and protests on the part of their relatives and friends.

SCHROTH'S COMPRESSES

Schroth's compresses are applied for toothache, headache giddiness, earache, &c., in which cases they are placed round the neck; for swellings, abscesses, &c., they are applied to the diseased part. For chronic or acute disorders, such as gout, rheumatism, and the like, the compresses should envelop the entire body. The latter, complete compress, however, may be recommended to all patients on the first few days of the cure. We have already described the most practical manner of arranging the packings, or compresses, on page 206, but wish to add that the easiest way of applying them to the patient is quickly to place the wet cloth round the body while he is standing by the bedside (his feet need not at this preliminary stage be wrapped up very carefully); then, over the wet cloth the dry one, and over this the blanket, are wound, the whole being secured with a safety-pin in front. The patient then sits down on the bed, his legs, not yet properly wrapped up, are lifted up and placed on the bed. Having thus been brought to a horizontal position, the wet and dry cloths and the blanket are each in turn properly tucked around the feet and secured with safety-pins. This method we consider preferable to any other—for instance, that of telling the patient to lie down on the wet linen cloth spread out on the bed beforehand. This usually causes the patient discomfort and prejudices him against the cure at the very start.

Many patients will struggle most obstinately against the application of the cold, wet linen cloths, and try their best to shirk the use of the compresses. They must, however, be insisted upon as forming an absolutely indispensable part of the treatment; and if our remarks about using warm or lukewarm water, be borne in mind, the patient will soon submit to them more willingly. The compress should not be too tight about the legs, lest, feeling hampered in his movements, the patient's sleep be disturbed.

Washing with *cold* water should be carefully avoided, only warm or lukewarm water being used both in washing and in rinsing the mouth.

It should be made a rule to continue to apply these *large* compresses until the offensive odour already referred to ceases, for, until it does so, it is evident that there still remains some impure and injurious matter in the system, which is being expelled by degrees. By the morning the compresses will invariably be found to have become quite dry, while the skin itself is moist and warm, and very supple and yielding, and after a time acquires a velvety softness.

Considering that, even in cases of local affections, the whole system is more or less involved, one may always use the *large* compresses, as thereby the desired results are more quickly attained. Only in the case of perfectly healthy individuals (and they are rare enough!), having sustained local injuries of a traumatic nature, such as knocks, blows, or bruises, or developed a wound, inflammation, or ulcer from some other accidental cause, do we recommend the employment of *partial* compresses, for which any ordinary towel or linen rag, or a piece of any suitable woollen material may be used.

The following items should be carefully noted by the patient:—

1. In chronic diseases fresh and cold water should never be drunk during the treatment.
2. For cleansing the teeth and rinsing the mouth *warm* water only may be used. If this injunction be disregarded inflammatory processes, swelling of the glands, and complicated throat-affections may ensue.
3. Women, particularly with delicate nerves, should, during the period of menstruation, take the precaution to reduce the large compresses, during that time, to a compress round the region of the stomach and one round the neck, folded four times and carefully wrapped round by a woollen bandage. These smaller compresses will prevent over-irritation. Enfeebled female patients should, at this time, mix a little water (warm) with their wine on "drinking" days.
4. It is strictly forbidden to wash the body with cold water after taking off the compresses.
5. Where the removal of accumulated phlegm is rendered very difficult on account of dryness in the mouth, a few mouthsful of slightly sugared wine (warm) may be taken daily. This will encourage easier expectoration. After this has been accomplished, discontinue the wine.
6. We cannot repeat too often : *do not engage upon hard work, strenuous exercise, or fatiguing walks while following out the Schroth Cure.*

7. When the patient takes the wine permitted on "drinking days," he must be careful to do so by *sipping*. On no account must he drink off a glassful at one operation, as this may very likely lead to vomiting and general feeling of sickness.
8. It will be as well for the patient to leave as long an interval as he can between eating the dry roll and sipping his wine, so as not to militate against the absorbent action of the former.
9. The wine having specific action on certain diseases—syphilis, &c.—it is quite possible that these may be stirred up by its use into renewed activity. Alarm need not be taken at such action, which is only transient, and is, in fact, a portion of the treatment, seeing that such stirring up is necessary for the speedier elimination of the blood-poisons.

Scrofulous tumours and ulcers; exostosis and caries; ophthalmia, so frequently attending strumous diseases and their after-effects; nephelium (film or specks on the cornea); otorrhœa and partial or total deafness, have been successfully cured by a rigid application of the Schroth treatment.

Where the above diseases are consequent upon inveterate syphilis, Schroth's treatment effects a more radical cure than any other known remedy.

Rickets with its consequences; crooked spine and limbs; gout with the deformations peculiar to it, and the functional disturbances attending it; hæmorrhoids; varices; hypochondria; ulcers of every species; chronic eruptions; lachrymal, rectal, and urethral fistulæ; and contractions of the urethra, have been cured by Schroth's method, sometimes within a few weeks' time and without the necessity of resorting to any of the painful surgical operations which have hitherto been considered indispensable.

Schroth's treatment has worked seeming miracles even in those cases always considered incurable (or almost so); of these we may mention paralysis, melancholia, epilepsy, caries, impotence, sterility, &c.—instances of complete recovery in such cases being far from rare when this cure has been pursued.

The effects of the Schroth-Cure have been well set forth in "Perpetual Health" (Heubner and Vogt), pages 60–79, and as we cannot improve upon what is so lucidly expressed there, we desire to refer our readers to that volume which very possibly is already in their possession.

For reassuring the patient, who may become alarmed at certain symptoms, some or all of which are almost invariably bound to make their appearance, we give herewith in tabulated form the most general ones, observed by Dr. Cybulka, for the reader's guidance:—

1. The ensuing, almost unbearable thirst is somewhat relieved by the complete compresses. Those will feel the thirst more acutely who have been in the habit of imbibing large amounts of fluids. In the course of the treatment the, at first almost intolerable, thirst gradually diminishes.
2. In the first part of the treatment the appetite vanishes almost completely, so that two or three rolls will be found sufficient for a whole day. The mouth is very

dry, but, as the cure proceeds, becomes more moist, rendering the process of swallowing easier, and the appetite improves. Under *no* circumstances should the patient take any milk, which would produce acid fermentation and jeopardise health.

3. The tongue becomes dry and furred, changing from a white, then yellow, often even to a brownish colour, and is, in addition, covered with a tough mucus. Sometimes this coating is even black. Gradually the tongue becomes moist and clean, starting at the edges and tip towards the centre and root, finally presenting a uniform healthy red colour.
4. The taste at first becomes insipid, and produces an inclination towards vomiting. Later on it grows sour, bitter, metallic (particularly in those who have taken mercury), and finally salty, which latter denotes an improved condition of the digestive functions. The taste improves as the cure progresses, and the breath of the reconvalescent becomes pure, the teeth white, the gums rosy—in short, all signs of healthy digestion manifest themselves.
5. The body becomes thin, the muscles relaxed and flabby, and fat is lost; but these phenomena need cause the patient no anxiety.
6. A feeling of feverish excitement in connection with weakness and lassitude, is frequent. The complexion grows pale and even ashen, sleep restless; flatulency, skin-itching, pains in the heels, cold feet and hands, oppression and disquiet set in. The patient is

despondent, very irritable, and frequently complains of pains and heaviness in the small of the back and feet, and quickly becomes tired. All these symptoms gradually abate, almost in proportion as the purifying action of treatment proceeds, and strength and vigour are rapidly picked up on changing to the after-cure.

7. The abdomen, at first distended and sensitive to pressure, by and by sinks in again and is no longer tender, and one can clearly distinguish the movements of the intestines, and an unpleasant contraction of the stomach is felt.
8. As before pointed out, the expectorations of the patient, particularly when his digestive organs have suffered for a long time, are astoundingly copious. At first a thick, tough, transparent, gelatinous, or white mucus is discharged. Later on it becomes grey, yellowish green, pus-like, and malodorous. The expectoration, especially when large masses of old phlegm are ejected, is sometimes preceded (particularly when much straining is involved) by nausea, which, however, quickly subsides. The expectorations themselves are also diminished as the cure proceeds.
9. A rash on the skin sometimes accompanies the treatment. If this be very mild no notice need be taken of it, and the cure proceeded with uninterruptedly. Should it increase unduly, drink some water-gruel with lemon-juice and sugar; or, instead of the latter, mix a quantity of wine, equal to a third of the gruel-water, with it.

10. Feverish shivers when the body has become warmed in the compresses, either local or embracing the whole person, are rather a good sign than otherwise. Cold feet can be relieved by hot-water bottles, which, however, it will be found can soon be dispensed with.

11. Vomiting sometimes takes place during the cure, and is generally preceded by headache, disquiet, shivers, belching, cold sweat, &c. A little warm wine, slowly sipped, will render good service in most cases.

12. The secretion of urine is at first very scanty, but when the treatment is strictly proceeded with its quantity rises within twenty-four hours to a pint or perhaps two pints, even if the patient abstain from all liquid. Its colour is more or less reddish, and frequently a burning sensation is felt in the urethra when voiding it. We have already referred in detail to the changes which take place in the urine found in the chamber. After "drinking days" during the strict cure the deposits in the urine become even more plentiful, but only when the cure has been correctly carried out. As soon as too much wine has been drunk, or too much diluted with water, the quantity is often smaller than on "thirst days," and the formation of sediments either entirely absent or very insignificant.

13. The stool is often entirely suppressed for days or even weeks, and when it appears it is usually very hard, like the excrements of goats; often covered with thick mucus or even with bloody stripes. The absence of the stool is not accompanied with dilation

of the abdomen or other complaints, and may, therefore, be ignored, seeing that, after all, only dry food is taken and the roll contains 80 per cent. of nutritive matter. The constipation is sometimes interrupted by one or two cases of diarrhœa, during which (at times accompanied with griping pains) large quantities of multi-coloured, offensive fæces and mucus, sometimes even some blood and matter, are passed. After this evacuation, in most cases, an improvement in the condition of the patient takes place at once. Sometimes this evacuation of the bowels does not take place till the after-cure, or even later.

14. Morbid matter is largely excreted by the skin, the evaporations of which cause the offensive odour of the sheets already referred to. This unpleasantness also gives way as the treatment nears completion.

15. The menses of women sometimes become irregular, or cease for the time, even though no irregularities have previously been experienced. This gives no ground for alarm, as regularity is assured with reconvalescence.

16. Slight skin eruptions or pimples, which very rarely accompany the treatment, should they appear, quickly disappear again.

CHAPTER IV

THE NEW-VEGETARIANISM

MANY concessions and modifications made in the foregoing four Menus may appear contradictory to and at variance with some of the theories and principles laid down in Part I., as the basis of our Anti-Collæmic Cure. It should, however, be borne in mind that we endeavoured to create a practical method of healing which should answer even individual requirements; and in this respect we preferred to go by absolutely practical experience rather than give rigid theories precedence.

We hope that we have succeeded once and for all, in showing that a meat diet is quite indispensable for carrying out *Cantani's* principles; and though being well aware of some of the disadvantages of meat, we may confidently state that the poisonous matters contained in it are rendered quite harmless through the heightened process of oxidation accompanying the Cantani Cure; and it must be remembered that a moderate amount only of meat is admissible even then.

Only in excessive amounts of meat, and what we called a "luxury consumption," will the meat-poisons come into evidence. We have, therefore, retained a meat diet also in Menus II. and III., because the total suppression of flesh food, by substitution of Kellogg's nut preparations, would render economising or husbanding of the oxygen illusory, on account of the large amount of fat contained in these nut-foods.

The whole matter assumes a different aspect when the cure, and in it the *artificial* husbanding of the oxygen, has been brought to a termination. Then the drawbacks of a meat diet may fall heavier into the scale, and he who has some misgiving on this head, may as well concern himself more seriously with a vegetarian diet. In how far he would pursue a vegetarian regimen, would, of course, depend chiefly upon his own individuality, constitution, disposition, and circumstances of living.

Still, a very moderate consumption of meat, we are convinced, can exercise no great harmful influence on one's health, and there is certainly a large number of people, and particularly individuals of an advanced age, who would but ill support a complete revolution in their heretofore accustomed mode of living. We are, however, confident that our delineations will suffice for the reader to choose for himself.

Those who favour a vegetarian diet, should by all means pursue the New-Vegetarianism founded by Dr. Kellogg; against it all the old accusations of too copious a food ingestion, with all its possible deleterious after-effects, are absolutely out of court.

Under this *régime*, mental and physical activity can be kept at a normal pitch. The bulk of solid food-stuffs ingested is very moderate, amounting in the aggregate to about one pound, and liquids, according to requirement, from two to three pints. The feeling of thirst, even in very hot weather, is generally but slight.

The menu of a New-Vegetarian consists merely of

Bread,
Nut-Butter,
Fruit,

vegetables and all other cooked dishes being rigidly excluded. The bread furnishes principally the carbohydrates; the nut-butter the albumen and fat; and the fruit the nutritive salts. The complete material for building up and maintaining the body is thus amply provided. Unfermented fruit juices are chiefly suitable for drinking; particularly when, in the winter, a choice of fresh fruit is not readily obtainable. It is imperatively necessary to eat the fruit raw, otherwise the question of the nutritive salts will become problematic. Good results will again be achieved here by taking cider-whey made of *non-alcoholic* cider.

From what we have argued so far, the fact will manifest itself that the new-vegetarian diet is also an anti-collæmic one. Once the blood is rid of morbid matter and blood-poisons, and has thus become pure, this dietetic regimen (new-vegetarian) will guard the body against becoming recharged with poisonous concretions.

CHAPTER V

ANALYSIS OF THE URINE

THE Anti-Collæmic Radical Cure is, as we have endeavoured to show, based on the premise that the blood is the source both of Health and Disease, and the main object of our diet is to excrete all poisonous matter from the system and thereby to purify the blood. The excreted morbid matter is chiefly found in the urine, which, in order to ascertain the progress of the treatment, should find some attention.

At the very outset we wish to point out that unscrupulous and dishonest practices have been indulged in by individuals exploiting what is known as uroscopy, *i.e.*, diagnosing disease from the urine. Uroscopy in itself is right enough, and there can be no doubt that the nature of the urine gives a fairly reliable clue to the recognition of a malady, but certain rogues have prostituted this art by simply glancing at the urine without any further scientific investigation. To make the experiment correctly, a fairly complicated scientific, chemical analysis becomes necessary, and this should be made by an absolutely reliable and competent expert. The layman, as a rule, will only be able to distinguish between dark and light urine, and notice the coarser deposits in the utensil, or he may succeed in making a superficial test by the aid of litmus-paper, *i.e.*, ascertaining whether the urine reacts alkaline or not. This, however, is by no means sufficient, and the acid or alkaline reaction is not ascertained quantitatively.

We, therefore, advise the patient who would be on the safe side of the question, to consult a really reliable and conscientious analyst as regards his urine.

Generally, during the Anti-Collæmic Cure, two aspects of the urine are of importance. Be the blood-poisons in the blood, and be they gradually expelled through the natural excretory organs (skin, bowels, and kidneys), they will also appear in the urine, which is either immediately dark or is decomposed after a time. In this case ocular demonstration will prove the effect of the treatment.

There are cases, however (gout, rheumatism, &c.), where the urine remains perfectly clear and does not become decomposed. In such cases the blood-poisons are deposited in the tissues, and it takes some time before they are brought out, enter the blood-stream, and are finally excreted. Sooner or later they are bound to appear in the urine, which becomes dark and decomposed (provided, of course, that the treatment take effect!)

Sometimes the deposits of morbid matter shift from one place to another, thus causing a new pain in a fresh place. This need not alarm the patient, as it is only a sign of the reaction and that the process of elimination has begun.

In serious chronic diseases, when deposits in the tissues and blood-poisons in the blood-stream co-exist, an excretion of dark urine often takes places, even before the Anti-Collæmic Cure has been commenced.

Neurasthenics should exercise more patience than other invalids; in their cases the elimination of morbid matter is often slower, and the restoration of vigour and regeneration of the weakened tissues and nerve-substance likewise more retarded.

PART III

Suggestion

PSYCHOTHERAPY AND NON-COMATOSE AUTO-SUGGESTION

No system of treatment or healing which would appeal to the entire functions and well-being of the organism can afford to overlook the immense importance of the mental factor in our bodily economy. We know only too well that our spirits suffer under physical suffering and that they will become buoyant and vivacious as soon as the material causation is removed. Careful scientific research, during the last ten years chiefly, has brought to light the now indisputable fact that the inverse phenomenon is equally true—that the mind can influence the body. In fact, mind and body are one indivisible, inter-dependent, co-operative entity, and an uninterrupted interchange between the two is constantly in operation. The same reciprocity exists between them as does between the several organs, as we demonstrated in the first part of this work. When one organ falls ill it generally affects also another organ. One of the most important factors in our body is the nervous system, which regulates all the functions of the organs and constitutes practically the basis of our mental and psychic being, and, finally, the very essence of our higher *ego*.

Every disturbance in or disease of an organ reacts on the nervous system, and there is hardly one malady unaccompanied by nervous concomitants. In many cases the nervous affection becomes the chief disorder and a series of disease symptoms appear which are collectively called neurasthenia, or hysteria. Frequently the *material* vehicle of these disorders no longer remains, but the nervous symptoms and manifestations are still painfully in evidence. Nervosity and the whole host of nervous diseases are particularly prominent on the modern cause-list, and all the more so because medical science has been conspicuously powerless in coping with them. Poisons and drugs have again been prescribed and administered lavishly, but, with the exception of momentary relief, they have again been found quite inadequate to deal with the evil; in fact, they have aggravated it in the long run.

Suggestion will prove a friend in need and in deed. Again we take recourse to a perfectly harmless natural "remedy," which moreover, if viewed from a sordid standpoint, is the *cheapest*, but in this case the very contrary of *nastiest*, in existence.

The great value of Suggestion, or, indeed, psychotherapy generally, will be appreciated not only by the diseased individual, but also by perfectly healthy subjects. It is the greatest mind- and character-builder imaginable. Numerous treatises have of late appeared dealing with this subject in some form or other, and while some are, perhaps, over-enthusiastic and consequently more poetic and beautiful than useful, most of them embody sound common sense and will help to raise the ethical standard of the age. We have dealt very exhaustively with the subject of Suggestion and its *practical* application to neurasthenia, nervous exhaustion, hysteria, sexual nervous debility, insomnia, headaches, muscular twitching, neuralgia, constipation, nervous irritability, mental insufficiency, alcoholism, masturbation, sexual nervous weakness, &c., &c., in our two books on "Will-Power" and "Life-Giving Energy." It would be impossible to give a full exposition of this absorbing subject in the present volume, as it would be swelled unduly, and we must, therefore, refer those of our readers who would learn all about the practical application and also the scientific explanation of Suggestion to these two volumes. Mr. R. Dimsdale Stocker has also dealt with Suggestion in his valuable treatise entitled "Sub-Consciousness," wherein he shows the possibilities of psychic concentration in a most interesting and fascinating manner. He dwells at some length on the powers of the sub-conscious mind and its place in the domain of what is now known as "Higher Thought." Mr. Stocker treats of Suggestion chiefly from the ethical point of view, and at times carries us, in spite of ourselves, into the realms of sublime dreamland. His book is, however, for the healthy; the invalid first of all requires health and strength before he can attempt to soar to higher spheres of ethics and æsthetics.

The particular species of Suggestion we propose for our invalid is non-comatose, *i.e.*, wakeful, suggestion as opposed to hypnotism, in which the subject is under the control of another individual. It is quite as effective as hypnosis, but less dangerous.

When practising Suggestion we have found it to be more effective if the use of the various formulæ be accompanied by regular, deep breathing. Breathing exercise, except in cases of serious lung affections, will be found very useful and generally invigorating.

There can be no doubt that a good deal of mischief has been wrought with hypnotism. This is quite out of the question with Suggestion in the wakeful state, which, moreover, is always applicable, whereas hypnotism, and, curiously enough, particularly in nervous subjects, is often quite ineffective.

The first serious scientific investigators of the phenomena of Suggestion were Drs. Ribot, Liebeault, De Lagrave, Lévy, Bernheim, and others, at Paris and Nancy, and we are indebted to them for placing at our disposal another invaluable auxiliary in combating disease. Our two previous works are based on the researches of these eminent scientists, and the favourable reception which these two books have found encourages us to draw the reader's kind attention to them at this juncture.

PART IV

The Various Diseases and their Treatment

THE PRACTICAL APPLICATION OF THE ANTI-COLLÆMIC RADICAL CURE IN DISEASES OF THE VARIOUS ORGANS

IF our premises as to the nature of disease be correct, and if, in the last instance, collæmia be the actual causation of the main body of diseases, we certainly have in the anti-collæmic cure a radical method of treating all maladies and disorders. Every one will be able to judge for himself which menu to choose and which stage of the process of oxidation is required to free his body from blood-poisons.

There is one circumstance which, however, demands attention. In many acute diseases, infections, and epidemics it obviously depends upon *when* the patient starts with the treatment. For consumption, for instance, Menu IV. is an excellent remedy, *provided the disease is in its first, or incipient, stage.* But as soon as the disease is very far advanced this dietetic method will only help to accelerate its progress.

Whenever an acute disease is recognised and taken in time the Anti-collæmic Cure, and particularly Menu IV., will indeed turn out a *radical* cure and do better service than any other method of treatment. The same remarks apply to chronic and very inveterate diseases, the most stubborn of which will quickly yield to this powerful cure.

The Anti-Collæmic Cure will prove useful in almost every form of disease known, and comparatively very few modifications in special maladies are required. The cases in which some amendments become essential will be dealt with in the following.

These modifications are based chiefly on the two fundamental principles upon which the menus have been built up. The menus were compiled not only with a view to combat *collæmia*, but also to embrace Dr. Lahmann's principle of *dysæmia*. Dysæmia is quite as dangerous as the overloading of the blood with blood-poisons. The question of the nutritive salts has been accounted for in the choice of the various food-stuffs, and principally in the cider-whey. It depends on the nature of the particular disease whether collæmia or dysæmia preponderates, and due consideration should be given to either alternative.

Although the Anti-Collæmic Radical Cure is worked out for self-treatment and renders the assistance of medical supervision superfluous, it would be a great mistake to ignore the physician entirely, like many fanatical followers of "natural methods of cure" are in the habit of doing. There are numerous cases when it is absolutely imperative to consult a qualified medical man, be it merely for procuring a reliable diagnosis of the disease in question. Very frequently this can only be done by a doctor. You must first know definitely what is really ailing you before you can begin treating yourself. Once the patient knows what is the matter he may still be free to choose the method of treatment he favours. If the physician be an old-fashioned one who insists upon the administration of drugs, &c., he very likely will sneer at the Anti-Collæmic Radical Cure; but if he be an up-to-date, progressive man he will surely side with our mode of healing, which, indeed, has already been done by several enlightened doctors.

For the sake of brevity and simplicity we revert to the various modifications of the Anti-Collæmic Radical Cure mentioned above under the descriptions of the divers systems of organs.

(a) Diseases of the Bony System

In these diseases it is chiefly a question of dysæmia. *Rickets*, *unsatisfactory growths of the teeth and their insufficient power of resistance; the many cases of malacosteon* (*softening of the bones*), *brittleness of the bones*, &c., and *proneness to diseases of the bones* generally have their origin in an inadequate supply of nutritive salts to the system.

In all these cases one should only go as far as Menu II., and give due prominence to the cider-whey. Even after finishing the strict cure, the cider-whey and the general principle of dietetic regimen should be retained. Dysæmia should never be permitted to gain the upper hand again. In *periostitis*, *osteitis*, *osteomyelitis*, and *arthritis*, collæmia predominates, in which case one may proceed as far as Menu III., which latter has recorded signal successes in these diseases.

Suggestion has hardly any influence on these maladies, which require dietetic treatment. It may only be useful in alleviating pain in a certain degree.

(b) Diseases of the Muscular System

As collæmia is the originator of these diseases, effort should be made to combat it. *Rheumatism* is very prominent amongst these, and has long since been recognised as the outcome of poisonous deposits in the muscle substance.

Muscular weakness, paralysis, fatty degeneration, ossification and *wasting* are undoubtedly not only due to collæmia but also to dysæmia. Menus I. and II. should be employed, and cider-whey largely partaken of. The treatment will probably be a lengthy one, and, as a rule, spreads over months. Menus III. and IV. are *not* to be employed.

Menus III. and IV. are, however, of very great efficacy in *muscular* and *arthritic rheumatism.* Sufferers from but slight attacks of these complaints will attain satisfactory results from Menus I. and II.; those, however, who have had the disease for a long time and have very violent attacks, had better resort to Menu IV. to ensure a thorough cleaning out once and for all. This, moreover, will assure him absolute freedom from pains and further molestations by the disease, and four weeks will ensure a more lasting and effective cure than years of Turkish baths, massage, sojourns at bathing resorts, &c.

Every rheumatic subject must, however, even after a severe course of treatment, take care to live anti-collæmically as much as possible, at least in principle, because, being inclined to uric acid formation, he is very liable to relapses. He would do well to give the new-vegetarian diet a trial.

Rheumatism is very frequently accompanied by nervous complications, so much so that we even speak of nervous rheumatism. In these cases, obviously, Suggestion plays a very important part, and should be employed simultaneously with the diet.

(c) Diseases of the Digestive System

The digestive system is, perhaps, the largest source of untold misery to modern humanity. We may well say that all sins and excesses of our present social life in the first instance attack the stomach and bowels. In addition to these excesses, medicine-poisons—which, unfortunately, are always immediately flown to for relief—have a most pernicious effect on the whole digestive apparatus; hence it cannot surprise us that these disorders excel in stubbornness, and are but reluctantly amenable to treatment.

Fortunately we can extend hope to all these sufferers, and recovery is assured them, provided they once and for all discard "drugging" and medicine-poisons, and, at the same time, rouse sufficient energy to carry out our instructions conscientiously and *to the letter.* In these diseases collæmia predominates, and is very frequently simultaneously accompanied with a specific *brain-collæmia,* in connection with numerous nervous complications. For this reason Suggestion must go hand in hand with the dietetic regimen.

According to the severity of the case Menus I. up to IV. are applicable in the following diseases: *Inflammatory and* *catarrhal affections of the oral cavity, tongue, parotis, gums, tonsils, throat, and œsophagus ; gastric catarrh ; dilation of the stomach ; ulceration of the stomach ; nervous dyspepsia ; cramp of the stomach ; intestinal catarrh ; appendicitis ; constipation and piles ; peritonitis ; dropsy ; hardening of the liver ; jaundice ; biliary calculi*, &c., &c. The worst cases of these diseases have been successfully treated by Menu IV.

After finishing the cure one should abstain for some time from the consumption of meat, giving preference to a new-vegetarian fare.

CONSTIPATION

is one of the most distressing of all disorders, and a few special remarks will certainly be welcomed. It is a very peculiar fact that Suggestion, particularly in this disease, is of almost unfailing efficacy. It appears that it has a regulative action on the centres of innervation, controlling the activity of the bowels. Where the sluggishness of the bowels has been aggravated by the abuse of aperients, great perseverance with the Suggestive treatment is required.

When suggesting to yourself a motion of the bowels, you should never leave the time indefinite ; you must, indeed, state a fixed hour when the motion is to take place. For instance, suggest to yourself on going to bed that you will go to stool at eight o'clock on the following morning.

It is better to go to stool *after* dinner than before, because the stomach, when starting on the digestive operation, has a stimulating effect on the peristaltic movement, thus facilitating an evacuation of the bowels. Never fail to go to the w.c.

punctually at the hour you have set yourself by suggestion, and even if no result follows, remain seated for ten or fifteen minutes. When this process has been repeated two or three times you will undoubtedly be successful. It is also a good practice to be very regular in visiting the w.c., preferably at a fixed hour in the morning. Do so, even if you feel no pressing necessity.

A Practical Illustration

One of the most desperate cases we ever treated, was that of Mrs. K. V——, which was under our personal and direct observation. The lady is forty-nine years of age, the mother of several children. She suffered since childhood from obstinate constipation. There was no purgative she had not tried ; no method of treatment she had not gone through! When we recommended that she try Suggestion, she was simply incredulous and laughed at the idea. However, her case was so desperate, she had become so hysterical and manifested such mental depression that she allowed herself to be persuaded by our enthusiasm to make a trial. Our confidence as to an ultimate cure overcame all her resistance.

On a Monday morning—the fifth day since she had had a passage—we explained to her the diet, and assured ourselves that it was abided by at the noon meal. We had the tea (a variety of our Tonic Tea) steeped, and the same evening the patient drank the first cup. Every morning after rising and upon an empty stomach, and every evening immediately before going to bed, she had to drink a cup of the tea.

We now gave strict orders that she should rise at seven considerably from the set time. These fluctuations continued for about three weeks. During this time the patient had visited the closet every morning at half-past seven, remaining each time from ten to fifteen minutes upon the seat. Diet, and drinking the tea, were strictly adhered to; also the patient ate bacon for breakfast every other day. The self-suggestion, for the most part without extraneous suggestion, was made morning and evening with strict regularity.

After the fourth week the patient's bowels moved nearly every morning at half-past seven, only a few days showing any variation. Diet and drinking the tea remained the same; the suggestion was modified somewhat. We allowed the patient to make the suggestion for an unspecified time, simply for the morning instead of precisely at half-past seven. Also, she need not make the suggestion in *recueillement*, but at her own discretion in the evening. She did this half aloud when she was walking about or sitting comfortably at her table, at the same time slightly rubbing her abdomen. We ordered, however, that she always make a pre-suggestion in the evening for the morning. From the fifth week on her bowels were regular and she only made the suggestion every two or three days.

Four months passed since the cure was commenced, and in that time she had changed into a healthy and happy woman. The discharge of blood and mucus formerly accompanying every strained passage, which caused her so much anxiety, had stopped; the appetite was good; the former swollen abdomen had become soft and pliable, the complexion had changed from a sallow sickly colour into one denoting good health.

A relapse has not yet made its appearance. She only practises the suggestion occasionally, it being no trouble to do so. The diet, however, is practically the same, as she has become used to it. When out in company or upon a visit she eats the same as everybody present. She still continues to drink the tea, without any addition, as she finds that it keeps her healthy and hearty, and in excellent spirits.

It would lead us too far should we attempt to set forth in this volume all the tactics of Suggestion, and we must refer our readers to our book "Will-Power," in which this subject is discussed at length and, we may say, exhaustively. Also in a small monograph, entitled "The Non-Comatose Suggestion," has the question of constipation been expounded.

We must not overlook the fact that beside mechanical obstructions, which often require operative intervention, and deficient innervation of the intestinal activity, constipation is due also to a collæmic condition of the bowels. It happens, too, that both conditions prevail simultaneously. In lack of innervation, Suggestion will restore the normal functions, but where collæmia obtains (easily ascertained by the experiment of the capillary reflux) mental treatment must be energetically assisted by a fight against collæmia.

Here, again, Menus I. and II., together with the cider-whey, are conspicuously effective. Instead of the ordinary Tonic Tea, the Constipation Tea, having an addition of a small quantity of *Baccæ spinæ cervinæ*, should be taken.

There are several dietetic auxiliaries which will bring quick relief and may be tried each in turn by the invalid, as very much depends on individual constitution in this complaint, and, indeed, in most intestinal troubles. Some remedies will help one patient, while another may feel a diametrically opposite result. In fact each person will have to do a little experimenting until he finds what really suits him best. Mind, we are only now speaking of adjuncts or auxiliaries for immediate effect, the Anti-Collæmic Cure, though occupying a somewhat longer period, is THE treatment by which to go.

The following Menu has been employed most effectively by a well-known specialist against a most stubborn case of constipation:—

In the morning, fasting: A cup of milk with a teaspoonful of honey.

Early breakfast: A cup of Apple Tea, with a little wholemeal bread, with butter and honey.

Second breakfast: A pint of buttermilk.

Midday: No soup. A little meat. Plenty of easily digestible vegetables (asparagus, roots, &c.); potatoes; plenty of *sweet* stewed fruit; salad. Daily take sweets—such as pancakes, pies, tarts, &c., with plenty of fruit juice.

Afternoon: Apple Tea with rusks and honey.

Evening: A little cold meat; eggs; wholemeal bread and butter; *sweet* stewed fruit.

Beverage for midday and evening: cider.

Although the effects of this Menu are very striking, they are merely transient and palliative, *i.e.*, the constipated condition reappears when the Menu has been discontinued; and, moreover, we cannot agree with it for constant use on, if we may use the term, anti-collæmic grounds.

The same remarks apply to most remedies, foods, and fluids, which are supposed to have a relaxing effect on the bowels. Although we cannot agree with them for these reasons, we propose to recapitulate a few of them in the following: Bacon fried in the ordinary way acts favourably on the bowels. Sweets also seem to have some salutary action in this respect—for which reason many people partake largely of honey, honey-cake, and such-like sweetmeats. Most fruits promote the offices of the bowels (with the exception of bilberries), also stewed fruits made of apples, plums, prunes, pears, cherries, and rhubarb. Stewed figs, or prunes, and a glass of water taken before going to bed, act most favourably (these two, by the way, are also in harmony with our anti-collæmic principles, provided very little sugar be used in their preparation). Fresh young vegetables are also recommended.

All these specifics presuppose a healthy and strong stomach. Sweets and fats, as we have seen, are not tolerated by an enfeebled stomach. Wholemeal bread, though for a time conducive to relieving costiveness, on account of its mechanical stimulation of the mucous lining of the bowels, will, if used continually, produce the very opposite effect, and seriously aggravate the constipated condition by over-irritating the intestinal muscles, and thereby fatiguing and relaxing them.

The correct and curative use of *grapes* is considered of very beneficial action in invigorating enfeebled intestinal function. The cure is begun by talking 1 to 2 lbs. of grapes daily, which quantity is gradually increased to 8 lbs. per diem. This amount is consumed in three instalments, viz., the first portion in the morning, fasting, the second, one hour before dinner, and the third at 5 o'clock p.m. The skin and pips should not be eaten. The grape-juice stimulates the peristaltic movement, and the patient has several easy evacuations daily. Grapes are specially recommended to sufferers from piles.

Exercise, indoor gymnastics, massage, and wet compresses also assist in regulating the stool.

Constipation becomes a very serious matter indeed when it has reached the stage of intestinal atony and hardened fæces have accumulated. The abdomen becomes distended, accompanied by all sorts of pains, chiefly very painful flatulency. The accumulation of fæces generally takes place in the lower part of the large intestine, for which reason the patient usually complains of a constant dull, stinging pain on the left side of the body, just below the short ribs (probably caused by pressure on the spleen). Lower down, in the S-shaped bend of the bowels, the pressure of the fæces on the sciatic nerve in the pelvic cavity causes a most torturing complaint, known as ischialgia, or sciatica. The most reliable cure of these pains consists in the removal of the constipated condition. More frequent than ischialgia is intestinal colic, a kind of neuralgia, which is also a consequence of constipation. The solid mass of fæces is prone to dilate the intestines unduly, which is still further aggravated by a copious development of gases above these concretions. The pains thus produced are very considerable, and relief can only be assured by removing the accumulations and constipation generally.

It is astonishing how long these solid masses may remain before causing trouble and pain; but they become fixed to the walls of the intestines, leaving sufficient room for the more fluid matter to pass through. Thus it may happen that the patient goes to stool pretty regularly every day, having no suspicion that anything is wrong. Even diarrhœa may set in, because the irritation of the stagnant deposits may produce a kind of colic, which alternates with periods of costiveness. On the other hand, this state of affairs is by no means without its element of danger to the individual's health. Suppose that through some circumstance an obstruction of the intestinal canal occurs on account of the hardened fæces. In that case an evacuation of the bowels in the ordinary way is rendered impossible. The patient cannot force a passage, and becomes very alarmed. Violent colic-like pains set in, followed by bilious vomiting, the pulse becomes low, the features drawn, and unless Nature or medical art steps in at the critical moment, the poor wretch is doomed. Sometimes the irritation of these concretions draws sufficient fluids to the affected parts, thus promoting their natural removal, or artificial assistance in the shape of water-clysters must be procured. Thereby the obstruction of the bowels is broken, and an evacuation, at times incredibly plentiful, is secured. Relief, then, is generally instantaneous.

Unfortunately, the result is not always so satisfactory.

The accumulations of waste matter are sometimes so enormous that the intestinal muscles have become quite paralysed, and a total stoppage of the bowels results in death. Levi found in a woman, fifty years of age, fifteen times confined, a subject to constipation for nine years, an accumulation of fæces weighing 4 lbs.; and Lemazurier, under similar conditions, one of 13 lbs.

Oil-clysters, as administered by Dr. Ebstein, have been found very beneficial in these cases. Oil seems to be the best means of dissolving these hardened masses, and moving them. This cure should be practised for from four to six weeks, and oil-clysters made of *pure* poppy oil (or, if that be not procurable, olive oil) should be made daily. At first take small quantities, not exceeding seven ounces, and gradually raise to about ten ounces, but never more. These remarks apply to adults; children require only from two to six ounces. The oil should be warmed to about 80–90° F. (28–35° C.). Impure or inferior oil will be quite useless —indeed, it may cause unpleasant irritation.

The clyster is administered while the patient lies on his back or side, and should be retained for about five or six hours. It acts better in the morning than in the evening. During these hours the patient must *remain in bed.* Those who cannot conveniently take the injection in the morning had better apply it at might, say at 11 o'clock, and keep it in until about 4 or 5 o'clock the following morning.

The best instrument for the application of the clyster is an enema, but care should be taken that no air remains in the pipe, and thereby be conveyed into the body. The instrument should also be kept immaculately clean, and must be fastidiously cleansed after use.

It is, however, important to note that the oil only dissolves the hardened fæces, but does not actually remove them. It thus becomes necessary to employ certain specifics to promote their expulsion. Several means may be used to gain this end, and it is well to employ them alternately during the time of the cure. At first an injection of lukewarm water, to which a pinch of salt has been added, should be made.

You may also use *senna-water;* for this purpose two tablespoons of senna-leaves should be soaked in half a pint of cold water in an earthenware or enamelled pot and allowed to "draw" overnight. This infusion is drunk after the oil has done its offices. The senna-leaves must *not* be boiled, otherwise they may cause discomfort. Another good propelling medium is *castor oil*—one to one and a half tablespoons as required. Senna-water and castor oil are the *only* harmless remedies, provided they are not used too long.

If the waste matter is already moved by the oil the before-described specifics should be dispensed with.

The hardened fæces are always discharged in small particles, not unlike beans or thin strips. Should in the ordinary course the stool assume this form this in itself is sufficient indication that hardened fæces are lodged in the bowels, which must be removed at all hazards.

Massage in these cases is *not* applicable and would only constitute an additional torture, as inflammation of the mucous membranes frequently co-exists. It is better merely to gently rub the abdominal region below the stomach with the flat hand in a circular direction from right to left. This procedure may also be employed against flatulency, but as soon as pain is felt it must be abandoned.

The abdomen in its normal condition should be soft and pliable in all directions without causing pain or indicating hard places. As soon as that part of the body is hard, distended, and unyielding to pressure some complications generally obtain, which should be ascertained by a doctor. Dr. Ebstein points out that the oil-clysters should not be discontinued suddenly, but only gradually; they constitute the mildest and best means of training the intestines to independent activity and removing habitual sluggishness of the bowels.

We only advise the use of clysters in very obstinate cases and when concreted waste matter has actually accumulated; in such cases the treatment by Suggestion and diet progresses rather slowly and the sufferer sometimes loses patience. In ordinary chronic constipation Suggestion and diet will suffice to bring about a quick and complete cure.

With the exception of oil-clysters and the few helpful specific remedies above mentioned, no other injections should be resorted to. The usual water-clysters must be deprecated, as they wash out and remove too much mucus from the intestines, thereby eventually doing much harm. Aperients must be strictly prohibited; they only act temporarily, while gradually ruining the intestinal canal, and in time encourage constipation rather than cure it.

Menus I. and II. will bring about a lasting cure, but the patient must make up his mind to persevere with the cure some time.

For *piles* Menus III. and IV. are the only certain remedy, and a course of treatment lasting about four weeks will generally be found quite sufficient. In this connection our *Health Tea* is most recommendable and will do excellent service.

Inflammation and swelling of the prostate gland, pressing on the rectum, and thereby often causing constipation, will readily give way under Menus III. and IV. In many mild cases Menus I. and II. will even suffice.

Diarrhœa is controlled by Suggestion in a most conspicuous manner. As a disturbance in the centres of innervation is mostly at the bottom of this disorder, Suggestion alone will frequently effect a lasting cure. It should be practised once daily for one week regularly, after which two or three times in one week, and later only in one month, will be ample.

(d) Diseases of the Blood-circulation

In all diseases of the blood and metabolism collæmia and dysæmia are equally concerned in many cases, as, for instance, in diabetes, where they even stand in a specifically lawful relationship. As originating causes they can hardly be separated in the following diseases: *Anæmia*, *scurvy*, *hæmacelinosis*, *hæmophilia*, *diabetes*, *gout*, *oxaluria*, *abnormal obesity scrofula*, *hæmorrhages*, *wounds*, &c. The same remarks apply to diseases of the heart and blood-vessels.

Dr. Lahmann, in combating dysæmia, has achieved signal results in anæmia, gout, apoplectic fits, diabetes, scrofula, and hæmophilia, and equal success has followed the eradication of the collæmic condition in these maladies.

Menus I. and II. are recommended for the treatment of these diseases. Only in very bad cases of *gout* will Menu IV. become necessary, which will, however, ensure most gratifying results. Gouty subjects must, even after undergoing the cure, always live more or less according to anti-collæmic principles. Besides Cantani's excellent regimen also new-vegetarianism will render beneficial service.

Individuals afflicted with an irregularity of the valves of the heart must not use Menus III. and IV.

In anæmia, chlorosis, and scrofula the cider-whey, in consequence of its richness in nutritive salts, is of foremost importance; it will eclipse all iron medicines in its efficacy and can only produce good, having none of the disadvantages of artificial preparations, as already mentioned. Menus I. and II. will form fresh and healthy blood, but the treatment must be strictly followed out, sometimes even for months.

In bad cases of anæmia one may proceed as far as Menu IV.; the same applies to scrofula and obesity, although signal results can be obtained in the treatment of the latter by merely following Menu I. only.

DIABETES

Special modifications of our menus have to be observed in this malady. This widespread disease, as shown by

Dr. Haig, has a close connection with collæmia, so that the principles of an anti-collæmic cure are applicable even here, and indeed will constitute an entirely new therapeutical movement in diabetes. It has been shown that as the uric acid rises the amount of sugar increases proportionately.

Cantani is not only a leading authority on gout, rheumatism, and oxaluria, but also on diabetes; in fact, this disease was considered incurable before his time. Cantani treated in his home, within six years, one hundred and seventy-four cases with brilliant success, and, be it remembered, *entirely on dietetic lines.* Cantani again used a meat diet, and in the following menu we will propose a modified dietary which makes a compromise between Haig and Cantani; and has been found signally successful by experience.

MENU AGAINST DIABETES

To begin with, the patient has to make the experiment of the capillary reflux and carefully note the result. He furthermore must note the specific weight, and amount, of sugar contained in the urine (it will be advisable for the patient to have an analysis of his urine made from time to time) and his body weight.

Fore-cure based on Cantani

As the success of Cantani's treatment is beyond all doubt, the patient must, under all circumstances, follow his dietary for, say, eight days, or, better, until the quantity of sugar in the urine is reduced to at least a third of its amount before the commencement of the treatment; it would be even better to continue it until the sugar is reduced to half.

During this time an exclusive meat diet must be observed. No transitory stage from the former mode of living to this regimen is necessary. Only three meals are to be partaken of per diem, viz., breakfast, dinner, and supper.

The menu is as follows:—

Bovril, *beef*, *veal*, *mutton*, *poultry* (pigeons, ducks, geese, turkeys, and chickens), and *venison* are permissible, but only the muscular parts, brain, and tongue should be taken.

(*Liver* is strictly prohibited.)

Fish: All kinds of fresh-water and sea fish.

Shellfish, *lobsters*, *shrimps*, *crayfish*, and *crabs*.

Pork, pickled and salt meats, and salted fish are strictly forbidden.

Meat is best prepared as before described, *i.e.*, grilled or roasted.

Fish and shellfish should be boiled.

All condiments, such as sugar, flour, wine, butter, and vinegar, are strictly forbidden in cooking.

To improve digestion and to strengthen very thin individuals Cantani recommends from two and a half to eight ounces of *pancreatic* fat, which is prepared in the following way:—

Take the fresh pancreas (or sweetbread) of the sheep, calf, ox, or goat, cut it into small pieces, mix with a certain amount of pig's lard, and digest in a digester[1] for three hours or even longer, then roast the whole slightly. The pancreatic fats constitute, as it were, artificially digested fats, which are then in a favourable state for absorption by the body.

We recommend every one to take one or two yolks of eggs (without white) raw per diem—one, say, after dinner and another after supper—but one after dinner will generally be found sufficient. It does not much matter how the patient divide his allotted amount of meat and fish between his three daily meals; generally speaking, one pound to one and a quarter pounds prepared meat will nourish him sufficiently; but should he lose flesh, and thereby weight, too considerably and rapidly, the quantity should be somewhat added to.

Great caution, however, should be exercised in this respect, as Cantani insists upon the smallest possible amount of meat consumption. It is better, therefore, to eat a little less than too much during the fore-cure. The patient will quickly pick up any loss of substance during the Anti-Collæmic Cure. Cantani's fore-cure only constitutes a criterion by which to gauge the diminution of sugar; this once established, it will be fairly easy to watch and control the progress of our special treatment. During the fore-cure all foods, bar those mentioned, must be eschewed, particularly *bread.*

---

[1] We mention this preparation just for the sake of thoroughness, not wishing to omit anything of importance; at the same time we fear there are not many families who possess that useful article—a digester.

BEVERAGES

Pure water.

Even those accustomed to alcoholic drinks should abstain; *seltzer* is also deprecated.

Those who linger somewhat longer over the fore-cure may (though a reluctant concession on our part) add a little wine to the water, but must be careful that it is neither too acid nor sweet. All other beverages, such as coffee, tea, cocoa, milk, &c., are rigidly excluded.

Intermediate Stage Preceding the Anti-Collæmic Cure

After four days of fore-cure the urine must be carefully analysed and the weight of the body ascertained.

From the fifth day on, while the meat diet is continued in the same manner as before, pure water is gradually replaced by *alcoholic* cider-whey.

As already pointed out, cider-whey must not be taken with meals.

A cup of whey should be drunk at 10 a.m., 11 a.m., and 4 p.m. respectively. The feeling of thirst is quickly diminished, and the quantity of cider-whey may be increased the following day; so much so that the daily ration may amount to one and a half or two pints. Should the cider-whey engender some discomfort it should be again filtered and only taken by the spoon. If diarrhœa set in the consumption must also be reduced, but it must not be given up entirely, as it plays a most important part in the treatment. It not only furnishes lactic acid—so highly valued by Cantani—but also the still more important nutritive salts, which the diabetic patient is more in need of than any other sufferer. Diabetics who are prone to diarrhœa in consequence of a disordered stomach and bowels should drink a cup of Health Tea immediately on rising. When the tea is abandoned the quantity of cider-whey should again be raised.

The urine should be examined every day, and it depends upon the result if the amount of cider-whey be increased or reduced.

The Anti-Collæmic Cure

A cursory glance might justify the assumption that no more suitable food could be found for the diabetic subject than Kellogg's nut preparations, seeing that they yield more albumen and fat (in this case quite indispensable) than meat. This might suit individual cases admirably, but it must be remembered that we desire to establish a treatment that is more universally applicable, and it is important to make a distinction between animal and vegetable albumen, which is demanded by the diversified and varying cases of diabetes. The fat, we know, is converted into sugar, but the sugar derived from animal fat is better worked up by the diabetic organism than that furnished by vegetables—and this is a most cardinal point.

On the other hand, we are aware of the dangers of too copious an ingestion of meat for the origination of collæmia. And if we now still insist upon the consumption of meat in order to benefit by Cantani's effective principle of oxidation for the expulsion of the uric acid and blood-poisons, we again must make the unalterable condition which spells *moderation.* It is not always easy to gauge the allowable and requisite amount, and increased vigilance is, therefore, imperative.

In order to forestall any possible risks, the Anti-Collæmic Cure should be pursued in the following manner, which has two objects equally carefully in view, viz., the formation of sugar and the formation of blood-poisons. As the latter, after all, predominates in importance, a few slight concessions will be made at the expense of the former.

BREAKFAST

After Cantani's fore-cure has been pursued for eight days, or until the sugar is reduced a third or even one-half, breakfast is entirely suspended and is substituted by the following:—

A cup of Apple Tea, without sugar or milk—we also forbid the use of saccharin as a substitute for sugar, as the same has been found a most noxious poison. The strength of the tea can be adjusted to individual tastes. With this, eat an ounce of bread and plenty of nut-butter—either spread on the bread or eaten with a spoon.

This menu must be kept up regularly, even if the amount of sugar should rise a little, which rise, however, will only be transient, seeing that this regimen is very anti-collæmic.

After an hour and a half you may resume drinking cider-whey. Should the patient lose weight too rapidly he may add a plate of Quaker Oats to this menu, provided the sugar in the urine has fallen to about 2 per cent. The action of Quaker Oats has been found very beneficial in most cases.

DINNER

Between 12.30 and 1 o'clock for preference

All soups are prohibited.

On the same day when breakfast is substituted by the above menu, the consumption of meat should be gradually reduced and replaced by nut-meat (Protose). Commence by taking 2½ and 3 ounces of Protose, and reduce the meat by that amount in weight. Every subsequent day reduce the meat by 1 ounce, and take in place 1 ounce of nut-meat. It is very important for the issue of the cure to carefully note the action of the nut-meat; for this purpose the urine must be tested every day and compared with that of the preceding day. Should the sugar rise, the change from meat to Protose should be effected more gradually and slowly. Still, one should try always to replace at least a third of the meat by nut-meat, seeing that the latter greatly helps to prevent collæmia.

Should the amount of sugar, after introducing Protose, remain the same, or even decrease, then the proportion of Protose to the meat should be as ¾ to ¼—*i.e.*, ¾ Protose, ¼ meat. Only in a very few cases will the total suppression of meat be indicated. This is the only innovation in the midday meal, and should last for four days; its effect should be accurately noted without paying attention to secondary considerations.

During these four days supper remains as usual—*i.e.*, the allowance of meat is continued *without* admixture of Protose.

a liberal quantity of Protose. Then follows the yolk of an egg, and finally radishes and watercress.

One and a half hours after supper drink a cup of cider-whey. After a few weeks a glass of some alkaline mineral water with a little cognac-brandy, or ordinary water with a little white or red wine (neither sour nor sweet), may now and again be indulged in.

The above dietetic menu is arranged in such a manner that the patient can adopt it for months without becoming unduly tired or "sick" of it. In mild cases two to three months, in severe cases at least six months, of careful treatment are required. To ascertain the result test the urine and make the experiment of the capillary reflux. The latter must, indeed, be made two or three times a day during the whole course of treatment.

Those who support the Protose well—*i.e.*, can without any hazard abandon an exclusive meat diet (which depends very much upon the individual's idiosyncrasy)—may, after finishing the cure, go back to a more ordinary way of living. Our general principle, however, should always be upheld, and while allowing more vegetables and some fruit (but not too sweet) and even an occasional farinaceous dish, no sweets should ever be taken. When taking farinaceous food give preference to Quaker Oats or porridge.

The diabetic subject must always be careful and ever ready to guard against relapses.

In some cases of diabetes oxaluria sets in during reconvalescence, and more care should then be bestowed on the choice of the vegetables, some of which are in themselves rich in oxalic acid, as, for instance, lettuce, carrots, cabbage, Brussels sprouts, spinach, asparagus, parsley, grapes, pepper, and tomatoes. Honey also belongs to this category. Vegetables in this particular case should, therefore, be considerably reduced in quantity.

Should the diabetic support the Protose badly he must abide by a preponderating meat diet, and when returning to his more habitual way of living he should carefully follow Cantani's circumspective measures.

The details to be observed in returning to the ordinary living, after severe cases of diabetes, are described by Cantani thus : " After the cure has been strictly followed for from three to six months it is permissible, provided no more sugar has appeared for at least two months, to introduce the consumption of green vegetables, starting with those of which the leaves are eaten, such as spinach, endive, lettuce, &c. After a month we allow old red wines (claret or Burgundy), and even cheese ; a fortnight later, almonds and nuts ; one or two months after that juicy, but not too sweet, fruits, such as strawberries, raspberries, peaches, apples, oranges, &c. ; then plums, gooseberries, green beans and green peas, tomatoes, melons, cucumbers, and pumpkins. Two weeks or a month later we permit milk and milk-dishes. Finally, when the urine, after a careful test, is absolutely free from sugar, we cautiously add small quantities of mealy food, the consumption of which must, however, be kept down as much as possible during the individual's whole life. Sugar, sweetmeats, ices, sweet coffee, &c., must be eschewed for life. Although a few of my patients could eat sweets with impunity, others had severe relapses of diabetes after the cure had lasted for a long time and was considered permanent.

"In milder cases of the disease the subject may return to ordinary living more quickly, and the intervals between resuming the different foods may be shortened; but great vigilance must ever be observed regarding the urine, and should the sugar reappear the strict regimen must be resorted to once more."

Our menu, as detailed above, being composed with a view to combating collæmia, no other foods and drink should be added to it under any circumstances. Seeing that collæmia is prone to reappear as soon as injudicious living is indulged in, we advise our readers to eschew mealy foods and fat as much as possible, even after the treatment has accomplished its purpose; it must be remembered that they violate Cantani's principle of oxidation. In the treatment of diabetes fat is allowed only as an exception, because the diabetic has no other material to draw upon for the generation of heat. As soon as he is once more permitted to use carbo-hydrates the fat becomes superfluous and must be dispensed with. Those who decide in favour of a new-vegetarian diet will find sufficient fat in the nut preparations to enable them to do without any animal fat whatever.

To prevent the return of collæmia the diabetic is once and for all forbidden ever to take up beer-drinking again. Beer is, and ever will be, a poison to him. He may drink a pure, light wine, neither sour nor sweet. Strong wines, such as sherry, port, Malaga, &c., and principally champagne, are strictly to be avoided. A little liqueur-brandy or whisky with Apollinaris or seltzer is not harmful if taken from time to time in great moderation.

Coffee, tea, and cocoa are always prohibited.

Cider-whey, Health Tea, Tonic Tea, and Apple Tea should become regular beverages.

Moderate smoking need not necessarily be vetoed.

Remember once more: *Moderation* must be the ruling principle for life. The total daily amount of solid food should as a rule not exceed 1¼ lbs. and liquid food from 2 to 3 pints.

Moderate exercise will assist the combustion of the blood-poisons, but should not be carried to excess or to the point of fatigue. Moderate walking and regular daily indoor gymnastics, involving the entire muscular system, are always recommendable. You can save yourself the trouble and expense of all health-journeys and voyages; all baths, massage, light and air-cures will be of palliative value only —none of them attack the root of the evil.

Suggestion, curiously, is of very great importance to the diabetic. We know that all psychic affections play a great *rôle* in this malady, perhaps more so than in any other, and that disturbances in the centres of innervation are almost always attendant upon diabetes. The efficacy of Suggestion in adjusting these disorders need hardly be emphasised again.

A large number of concomitant disorders can be readily overcome by psychotherapeutic methods; we need only mention constipation, diarrhœa, palpitation of the heart congestion, headaches, and particularly neurasthenic conditions. But one must never overlook the fact that diet is the soul of the whole cure; Suggestion, though an indispensable adjunct to the treatment, acts only symptomatically, but cannot actually eradicate the collæmic condition which almost invariably is the primary cause of diabetes.

(e) Diseases of the Urinary Organs

Collæmia, again, is principally concerned in diseases of the urinary organs, although dysæmia alone can occasionally lead to chronic inflammation of the kidneys, as demonstrated by Dr. Lahmann.

In all affections of the kidneys the Tonic Tea and Health Tea should, as a rule, be drunk *very weak* or even left out of the menu entirely, since these teas have a diuretic effect and, particularly in diseased kidneys, might produce over-irritation. Cider-whey, on the contrary, should be religiously imbibed; it has a very beneficial influence in inflammatory conditions of those organs. *Non*-alcoholic cider-whey is recommended in this case.

In acute inflammation of the kidneys it is advisable to go through Menus I. to IV., and the same applies to pyelitis. Menu IV. is also very successful in *nephritic calculi* and the colic produced by them, and *catarrh of the bladder.* The Anti-Collæmic Cure is particularly applicable to *Bright's disease;* we would, however, advise the patient to use Menus I. and II. for several months and only venture on Menus III. and IV. in very extreme cases.

Diseases of the kidneys are usually very stubborn and are slow in yielding to any treatment. To guard against relapses new-vegetarianism should find consideration.

The less meat you take the better, and *alcohol in any form is strictly prohibited.*

(f) Diseases of the Respiratory Organs

Collæmia, again, should be attacked in diseases of the respiratory organs, particularly those of a catarrhal nature. Menus I. to IV., according to the severity of the case, may be employed in the following diseases: *Cold in the head*, *chronic nasal catarrh*, *nose-bleeding;* in diseases of the larynx: *acute and chronic catarrh of the larynx*, *cramp of the glottis;* diseases of the windpipe and bronchiæ: *acute and chronic bronchial windpipe catarrh*, *croup*, *quinsy*, *bronchial dilation*, *whooping-cough*, *asthma*, *catarrhal inflammation of the lungs*, *croup-like inflammation of the lungs*, *pleuritis*, *peritonitis*, and *dropsy in the chest.*

Even the worst cases cannot stand up against Menu IV. In all diseases of the respiratory organs cider-whey is one of the most important agents; even severe cases of inflammation of the lungs, asthma, and whooping-cough have been cured by cider-whey alone.

(g) Diseases of the Sensory Organs

In diseases of the eyes, ears, and nose, specialists are generally consulted, which practice should certainly be encouraged. Still, blood-poisons predominate also in these diseases, and their elimination will ensure relief equally as much as local treatment. Menus I. and II. will generally suffice; in bad cases use Menu IV.

Inflammation of the ear, and the various *inflammations of the different parts of the eye*, such as *conjunctiva*, *cornea*, *iris*, *retina*, *vitreous body*, *optic nerve*, also in *atrophy of the optic nerve*, have been treated with remarkable success by the Schroth Cure.

Diseases of the skin are remediable, even in severe cases, by Menu IV., such as *eczema*, *psoriasis*, *acne*, *furunculosis*, *lupus* (erythematodes), *pruritus cutaneus*, *barber's rash*, *ringworm of the beard*, *pemphigus*, *hæmacelinosis*, and *itch*.

We even know of cases where warts, corns, and ingrowing toenails were cured by Menus I. and II.; indeed, we must agree with Dr. Haig when he said: " . . . Collæmia dominates the function, nutrition, and structure of the human body to an extent which has never yet been dreamed of in our philosophy, and in place of affecting the structure of a few comparatively insignificant fibrous tissues in which it is found after death, it may really direct the development, life-history, and final decay and dissolution of every tissue, from the most important nerve centres and the most active glands to the matrix of the nails and the structure of the skin and hair."

We may add that the treatment has even succeeded in arresting premature baldness.

(h) Diseases of the Nervous System

Nervous diseases are the curse of modern times, and particularly in this domain has Medical Science shown itself most impotent. The treatment of brain-collæmia and particularly the employment of psychotherapeutics are now considered the best means of subjugating these complaints.

We must first try to do away with the collæmic condition, which in these diseases chiefly takes the shape of brain-collæmia, touching the spinal nerves and thereby indirectly affecting the sympathetic nervous system.

To establish the degree of the disease, again make the experiment of the capillary reflux.

Menus I. and II. are generally equal to deal effectively with mild cases. The nutritive salts being of particular importance in these disorders, cider-whey should occupy a prominent position, and its effect will be felt within a few days. Brains and the yolk of eggs is most useful in supplying valuable nutriment to the nerve-substance.

In severe cases Menus IV. even may be employed, and will remove congestion to the head, headache, nervous pains, megrims, neuralgia, and sciatica. Even epilepsy has been successfully treated. In diseases of the spinal marrow, especially when far advanced, Menu IV. should be avoided. If an improvement be possible in this disease, Menus I. and II. may afford some relief. Suggestion, too, is of service.

We confidently aver that all species of neurosis are under the control of brain-collæmia. This applies chiefly to the following morbid phenomena: epilepsy, St. Vitus's dance, tetanus, catalepsy, hysterical fits, writer's cramp, and germane nervous afflictions. The Anti-Collæmic Cure is the remedy *par excellence* for these disorders; but only Menus I. and II. will be found practicable in these disturbances; hardly any such sufferer is in a fit condition to undergo the hardships of Menus III. and IV.

The same remarks hold good for diseases of the brain up to the stage of actual *dementia.* A lot can be done with Menus I. and II. There can be no doubt that this dietetic regimen can be of great service in many cases of mental diseases, and will bring great relief; and there appears to us no real reason why certain cases should not be cured by it. To our knowledge, no treatment like ours has yet been essayed in any lunatic asylum, and an experiment of that nature would not only prove interesting but undoubtedly very useful, and be an improvement on many of the present methods resorted to—such as hydro-therapeutics and other drastic measures—while the important question of scientific nutrition is almost totally disregarded, thus, instead of ameliorating, *aggravating* the collæmic condition which invariably plays an important part in these lamentable mental diseases. In all nervous afflictions our system of non-comatose suggestion has scored brilliant victories, and as a preventative measure at the beginning of an attack of "nerves" it is invaluable. It is most effective in regulating the blood-circulation, menstruation, hæmorrhage, palpitation of the heart, oppression, congestion, &c.; but as all these morbid states and nerve disturbances have been exhaustively dealt with in "Will-Power" we can dispense with further detailed elaboration of the subject at this juncture. We wish to add, however, that it will be necessary for the patient to thoroughly familiarise himself with the *modus operandi*, or working tactics of Suggestion. He must get a thorough grip of the whole subject; it must be thoroughly assimilated by his mind in order to derive individual benefits from it. In many cases people are satisfied to cling to the words of, and automatically "babble," the formulæ of Suggestion, and they are surprised that no change in their morbid condition takes place. It is not so much a question of *words* as that of *thought*, *frame of mind*, and *mental habit;* and in order to accomplish this end a satisfactory knowledge of our brain mechanism is indispensable.

In our previous effort we have tried to elucidate this important and highly interesting subject, and to apply the logical deductions which our investigations have empowered us to make to practical purposes. In the course of our experience we have learned that the neurasthenic who would practise Self-Suggestion must study his own individuality and try to find out the particular "turns and twists" which his own tactic of controlling nervous habits by Suggestion demands. But always remember Suggestion and the fight against collæmia must be allies and work hand in hand in conquering nervous, or, indeed, neurasthenic disorders.

In this connection we can recommend to the nervous sufferer a most soothing tonic, which being no drug may be partaken of to still nervous excitation, fatigue, and insomnia, &c.—we are referring to orange-blossom water—or, to be more precise, *Eau de fleur d'oranger.* Although a household article in France, it is comparatively little known in this country, and will be welcomed as a nerve-soothing beverage by many people. Care should be taken to secure the original *French Extract.*

deeper into this question here—though we have the very strongest views on the subject. To all those who suffer, *or imagine they do*, from sexual neurasthenia we can conscientiously and honestly give the advice: read our previous treatise, "Life-Giving Energy." We rely on the courtesy of the reader to acquit us of any suspicion of vaunting our own wares when we say that in this volume will be found a concise, lucid, straightforward, and helpful explanation of the whole subject. The writing of the book was to us—if we may use the expression—a labour of love; the work was compiled to combat a necessary and crying evil, and to act as an antidote to the clap-trap pamphlets which appealed to the erotic-minded individuals of both sexes, who hoped to find in them *something of interest!* In this work we have put forward—we trust in manly and *clean* fashion—the whole matter, and though we have naturally been as delicate as possible in our treatment, at the same time we have not sacrificed *utility* by following out the tenets of a false and mistaken modesty (?). The object—nay, the *stern duty*—of the physician is to do all in his power to help, succour, and heal all sufferers.

Suggestion is of paramount importance in cases of sexual neurasthenia, as carefully enunciated in "Life-Giving Energy," but it must be conscientiously accompanied by a dietetic regimen, for which Menus I. and II. should be used. The Suggestive treatment is for *nervous* sexual disorders, not for actual venereal diseases, such as gonorrhœa, syphilis, after-effects of mercury-abuse, &c., in which case more drastic measures, as described above (Menu IV., &c.), must be insisted upon.

Alcohol should be avoided also in sexual neurasthenia, as it eventually has a harmful effect on the male creative potency, and has a general relaxing influence on the whole bodily elasticity of the individual. Cold water in the treatment of these nerve-affections is often found very beneficial.

(I) General Acute Infectious Diseases and Neoplasms

The collæmic blood furnishes the best soil for the development of infectious diseases, and in order to guard against them a blood-purifying treatment, such as ours, is distinctly indicated. Dr. Lahmann asserts that even neoplasms—such as *cancer*, &c.—can be forestalled if the blood be in a normal and healthy condition. When once any infectious disease has taken root in the system a collæmic or dysæmic condition of the blood generally obtains to such a degree that our Anti-Collæmic Cure may come too late. We, therefore, purpose not to further encroach upon this particular category of diseases, and perhaps trespass upon the rightful preserves of the physician, as we do not wish to make ourselves responsible by pushing forward our cure when we are well aware that it may be too late and powerless to cope with the situation. Those who have inwardly digested our anti-collæmic principles will be able to judge for themselves whether they prefer relying upon our treatment in such an emergency, or to give precedence to symptomatic and less lengthy methods.

Carbo-hydrate :
Organic compound of carbon and water.

Caries :
Decay of the bones or teeth.

Catalepsy :
Asudden suspension of voluntary sensation.

Chyle :
The milky fluid separated from the chyme [*see*] by the action of the pancreatic juice [*see*] and the bile, absorbed by the lacteal (milky) vessels and assimilated with the blood.

Chyme :
The pulpy mass of digested food before the chyle [*see*] is separated from it.

Clyster :
An injection of water into the rectum to promote a passage of the bowels. When oil is used it becomes an oil-clyster.

Colloid :
A glue-like, viscid substance.

Conjunctiva :
The mucous membrane of the eyelid.

Cornea :
The transparent outer coating of the eye.

Creatine :
An organic substance obtained from muscular fibre.

Cutaneous :
Belonging to, or affecting, the skin.

Cystic duct :
Small duct or tube conveying bile from the gall-bladder.

Dementia :
Madness, insanity.

Diathesis :
A constitution of body predisposing to certain diseases.

Dyscrasia :
An altered condition of the fluids of the body leading to constitutional disease.

Exostosis :
A tumour of a bony nature, growing upon, and arising from a bone.

Fæces :
Human excrement.

Febrile :
Pertaining to, or indicating, fever.

Fistula :
A kind of ulcer or suppurating swelling, in form like a pipe.

Furunculosis :
The morbid state characterised by the presence of furuncles or boils.

Glottis :
The mouth of the windpipe, constituting a narrow aperture covered by the epiglottis when one holds one's breath or swallows, and contributing to the modulation of the voice by its contraction and dilation.

Hæmoglobin :
An albuminous substance, forming the chief part of the red corpuscles of the blood in vertebrate—or back-boned—animals.

Hæmophilia :
A constitutional tendency to hæmorrhage; people afflicted with this disease are known as "bleeders"—they have dangerous bleeding from trifling wounds, as there is no coagulation.

Humours :
The fluids of the body.

Hypochondria :
A complaint characterised by excessive anxiety with regard to the health, attended with great depression of spirits.

Iris :
The coloured circle surrounding the pupil of the eye.

Lachrymal :
Secreting or conveying tears.

Larynx :
The upper portion of the windpipe.
Leguminous :
Pertaining to, or consisting of pulse.

Megrims :
Practically sick or bilious headache.
Mesenteric :
Appertaining to the mesentery, *i.e.*, the membrane which forms the medium of attachment between the small intestines and the abdomen.
Metabolism :
The continuous chemical change going on in living matter. The act or process by which living tissues or cells take up and convert into their own proper substance the nutritive material brought to them by the blood, or by which their cell protoplasm [*which see*] is converted into simpler substances, which are fitted either for excretion or for some special purpose—as in the manufacture of the digestive ferments.
Mucus :
Viscid secretion of the mucous membrame.

Neoplasms :
An abnormal new formation.
Nephritic :
Pertaining to the kidneys.

Œsophagus :
The canal by which food passes to the stomach : the gullet.
Ophthalmia :
Inflammation of the eye.
Ossification :
The act or process of changing into bone.
Osteitis :
Inflammation of the bone.
Osteomyelitis :
Inflammation of the marrow of the bones.

Otorrhœa :
An objectionable discharge from the ear.

Oxaluria :
The presence of crystallised oxalate of lime in the urine—in considerable quantity.

Pancreatic Juice :
The liquid secreted in a gland near the stomach, which aids digestion.

Parotis :
One of a pair of glands situated on either side of the cheeks—connected with the ears.

Pemphigus :
A vesicular skin disease.

Periostitis :
Inflammation of the skin enveloping the bone.

Peristaltic :
A movement of the bowels not under the direct control of the will.

Peritonitis :
Severe inflammation of the mucous membrane lining the abdomen.

Pleuritis :
Pleurisy.

Prophylaxis :
The preventive treatment of disease.

Prostate Gland :
The gland situated near the neck of the bladder.

Proteids :
A name for amorphous nitrogenous substances—albumen, for instance.

Psoriasis :
A dry, scaly skin disease.

Psychotherapy :
A system of curing diseases through the medium of the mind, such as Suggestion, Hypnotism, &c.

Pyelitis :
Inflammation of the bony parts in the vicinity of the kidneys.

Recueillement:
State of quiescence—rest.

Sanguification:
The conversion of chyle [*which see*] into blood.

Serum:
A pale, yellowish liquid contained in the blood.

Sputa:
Expectoration; spittle.

Strumous:
Scrofulous.

Tetanus:
A disease marked by long-continued spasms of certain muscles.

Traumatic:
Pertaining to, or applied to, a wound; adapted to the cure of wounds.

Urea:
The chief organic constituent of urine.

Urethra:
The membranous tube by which the urine is discharged.

Uric Acid:
A tasteless, inodorous substance found in the urine.

Varices:
A species of varicose vein.

Vaso-motor Centres:
The centre in the spinal cord and medulla (in the brain) which are supposed to control dilation and contraction of the blood-vessels.

UNWIN BROTHERS, LIMITED, THE GRESHAM PRESS, WOKING AND LONDON.

THE MODERN MEDICAL PUBLISI

57/58, Chancery Lane, London,

Notice to the Read

THE MODERN MEDICAL PUBLISHING COMPANY have made arrangements with **Messrs. S. W. Thompson & Co.**, agents for **Ebbard's Apple-Tea,** and **Mr. C. J. Burt,** agent for **Ebbard's Tonic-Tea,** to stock these teas for the convenience of their customers, and to ensure them getting the right article in good and fresh condition. The **Health-Tea, Eau de Fleur d'Oranger, etc.,** will also be kept in stock.

The prices are as follows:

Ebbard's Apple-Tea in large packets at			**2/6,**	**postage**	**3d.**	**extra.** ✓
,,	**Health-Tea**	,, ,,	**2/-**	,,	**3d.**	,, ✓
,,	**Tonic-Tea**	,, ,,	**2/-**	,,	**2d.**	,, ✓
Eau de Fleur d'Oranger, large bottle at			**2/6**	,,	**4d.**	,, ✓
Protose (Vegetable Meat), 1-lb. tins at			**1/-**	,,	**4d.**	,,
Almond Nut Butter		,, ,,	**2/-**	,,	**4d.**	,,

☞ ***Postage to the Colonies and abroad, 1s. extra.***

The M. M. P. Co. cannot undertake to supply Cider-whey.

☞ *Please address all your Orders to* THE MODERN MEDICAL PUBLISHING COMPANY, *to insure getting the right article. When ordering please mention this book.*

Our readers are respectfully informed that we shall be pleased to *supply any Books, Periodicals, &c., at the usual prices.* All orders will meet with the promptest attention.

A Catalogue of select high-class literature will be sent on receipt of penny stamp to cover postage.

THE MODERN MEDICAL PUBLISHING CO.,

57/58, Chancery Lane, London, W.C.

Crown 8vo, Bound in Cloth, 6/6 net; 6/10 post free

Postage for abroad 6d.

How to Acquire and Strengthen

WILL-POWER

MODERN PSYCHO-THERAPY

A Specific Remedy for Neurasthenia and Nervous Diseases

A Rational Course of Training of Volition and Development of Energy, after the Methods of

The Nancy School

as represented by Drs. Ribot, Liébault, Liégeois, Bernheim, de Lagrave, Paul Emile Lévy and other eminent Physicians

BY

PROF. RICHARD J. EBBARD

Revised by F. W. Vogt

"NEW SELF-HELP" SERIES. No. I.

PROFESSOR R. J. EBBARD'S

RATIONAL TRAINING OF THE WILL AND THE DEVELOPMENT OF ENERGY.

This ingenious course of **self-treatment** first of all removes all impediments to energy and will-power, such as:—**NEURASTHENIA**, absence of mind, insomnia, exhaustion and debility, headaches, trembling, timidity, trepidation, neuralgia, nervous pains, loss of appetite, **indigestion**, weak memory, confusion, fits of rage, inconstancy, alcoholism, nicotinism, hysteria, sexual disorders, cowardice, absent-mindedness, lack of self-confidence, melancholia, stage-fright, fright of exams., bashfulness, &c.

Furthermore, an appendix has been added which gives an unfailing and permanent cure of **GOUT** and **RHEUMATISM**.

As a cure for neurasthenia and all the impediments to the development of energy, the following advantages can be claimed for this method :—

It is infallible.

It takes effect immediately, and effects a complete cure in a few weeks, according to the severity of the case. It is the cheapest cure in existence!

Even the weakest and most wanting in energy can start with the treatment immediately without any trouble, but with unfailing success.

It requires no pecuniary outlay other than the daily cost of living.

It is neither troublesome nor tedious, nor does it take up your valuable time.

No expensive medicines are required, no course of treatment, no sojourn at bathing resorts, &c., *no* cold water cure, massage, electrical treatment, hypnotism, &c., is necessary. *Nothing* but the book is required!

It can be carried out without interrupting, or interfering with, your business duties or calling.

It needs no assistance from a physician.

It can be followed up unknown to those around you, and without the assistance of any one. It lies solely in your own hands.

After complete cure it is the surest means of preserving the health, a protection against any relapse.

It is also an invaluable means for healthy people for strengthening and increasing mental and characteristic propensities.

It strengthens the will, self-confidence, determination, develops energy and activity for reaching the highest aims. This is really "what the world wants!" &c. &c. &c.

Short Extract from the Table of Contents.

The Elemental Impulses of the Will (Instincts or Cravings).—The Dominants of our Actions.—Dietetic Rules for Neurasthenica.—The Psychical Inciting or Actuating Centres.—Treatment for: Insomnia; Nightmare or Exciting Dreams; Drowsiness and Late Rising; Breathing through the Mouth and Snoring; Loss of Appetite; Nervous Pains and Aches in the Stomach; Constipation; Diarrhœa; Sick Headache; Neuralgia, Toothache; Palpitation of the Heart, Anxiety, Oppression; Muscular Trembling or Twitching; Nervous Irritability, Impatience, Bursts of Passion; Enervation, Fatigue, Lack of Energy, Listlessness; Fickleness; Hypochondria, Melancholy, Dejection; Alcoholism, &c.; Hysteria; Overwork; Delusions; Stage-fright, Fright of Exams.; Shyness, Nervousness, Cowardice; Stammering; Lack of Concentration, &c., &c., &c.—Appendix: Uric Acid Considered as the Engenderer of Disease.

THE PRESS.

Science Siftings writes: "'How to Acquire and Strengthen Will-Power' is a book which deals with modern 'psycho-therapy,' and aims at remedying neurasthenia and nervous diseases. It is, of course, based on the teachings of the famous Nancy School, seeking to assist the training of will-power and the development of energy. The author, Professor J. Ebbard, has based his knowledge on that of Drs. Ribot, Liébeault, Liégeois, Bernheim, de Lagrave, and Paul Emile Lévy. The teachings of this particular group must not be confounded with the hypnotic school. It appears rather to be founded on well-defined schemes of self-suggestion—which we have found very useful—and a rational diet, together with a tonic tea. The contention is advanced that in neurasthenia the nerves may be sound, but the brain diseased, and that by controlling this psychic centre we may restore a healthy condition. The theory is perfectly logical and based on accepted psycho-therapeutics."

The Favourite Magazine writes: "We beg to draw attention to the methods employed by Physicians of the Nancy School, who use neither drugs nor medicines. We have investigated the matter, and it appears to us that the method employed is an excellent one. The use of strong medicines gives temporary relief only, and always has a deleterious effect upon the digestive organs, and leaves the patient in a worse condition after using them. The Nancy method, on the contrary, cannot possibly leave bad after-effects, and should prove very beneficial."

The Health and Strength Magazine writes: "I have benefited much by Prof. Ebbard's 'Suggestion Cure,' in his book on 'Will-Power.' I cannot thank you and your coadjutors too much. Kindly convey to them my warmest appreciation."

Light writes: ". . . We now venture to call attention to a work, 'Will-Power,' by Professor R. J. Ebbard, dealing exclusively with this subject. Strictly speaking, the book is a medical one, based upon the theories and methods of the celebrated Nancy School. There is no hint of mysticism, occultism, or self-advertisement; but just a plain statement, in language free from technicalities, of the potency of self-suggestion. It may be regarded as offering a new form of self-help—as giving scientific justification to the 'as a man thinks so he becomes' of everyday experience. The book is divided into two parts, theoretical and practical. . . . It is the author's aim to make public a method of health restoration which, though well known and appreciated by certain medical practitioners, is as yet unsuspected by the world at large. There are hosts of sufferers from nervous debility who might become their own physicians and free themselves from their ailments, did they but know the wonderful efficacy of self-suggestion. . . . For full details as to the employment of scope and self-suggestion, we recommend a careful perusal of 'Will-Power.' . . . Prof. Ebbard's book strikes us as being a particularly useful one to place in the hands of an invalid, and one likely to arrest the attention and arouse the interest of a large number of persons."

The London Stock Market Report writes: ". . . , Professor Ebbard delineates a new and most effective system of training will-power and energy, and developing characteristic propensities. We all know how important such qualities are at the present day, where success in life depends almost entirely on strength of mind and character. We believe Prof. Ebbard has hit the nail on the head with his principles, which are advanced in the contention that the body must be sound and strong to envelop a sound and strong mind. He, therefore, commences with a radical cure of all nervous complaints and ailments, and then proceeds to train the will and character. Prof. Ebbard, we are confident, has succeeded in realising Seneca's axiom, viz., 'No evil propensity of the human heart is so powerful that it may not be subdued by discipline' (self-discipline = will-power ?). The book is splendidly and clearly written, and is worthy of a wide public."

The Money-Maker writes: "The important question concerning the extent to which the human mind is responsible for the cause and cure of many of the ills which the flesh is heir to, has attracted the attention of scientific men for many years, but the general public have yet to be fully instructed as to the wonderful influence that may be consciously as well as unconsciously exerted by the mind in the cure of nervous and other ailments. 'How to Acquire and Strengthen Will-Power' describes the theory of suggestion and its practical application by means of a number of rules or formulæ. The mind, the author claims, can be so trained as to enable every one to become his own physician in cases where the complaint has a nervous origin. The book is interesting throughout, and will no doubt find a large number of readers."

Many more can be seen at the headquarters of the Company.

THE MODERN MEDICAL PUBLISHING CO.,

57/58, Chancery Lane, London, W.C.

Crown 8vo, Bound in Cloth, 5/- net; 5/4 post free.

Postage for abroad, 6*d.*

LIFE-GIVING
ENERGY

(SEXUAL NEURASTHENIA)

BY

PROF. RICHARD J. EBBARD

AND

F. W. VOGT

"NEW SELF-HELP" SERIES. No. 3.

(Sequel to "Will-Power.")

This standard work on a subject of absorbing interest treats specially of nervous sexual disorders, neurosis, hysteria, neurasthenic prostration and exhaustion, etc., etc., and of the *effective cure* of these and similar morbid states, vicious propensities and perverse mental habits. Its interest is greatly enhanced by its readable, lucid style, unencumbered by technicalities, the freshness of the ideas to which the author gives expression, and the striking and novel point of view from which he approaches the subject. This book will certainly dispel many widespread misapprehensions and errors, and dispose of a host of exaggerated doubts and fears. Professor Ebbard extends to all sufferers both help and hope!

At the conclusion of the Preface, Professor Ebbard makes the following pertinent remarks:—"One word more may fitly conclude this brief prefatory notice. As Neurosis and Neurasthenia are, pre-eminently, disorders characteristic of the present period, so, also, an excessive 'pushing' spirit, an insatiable craving for notoriety, commercial or otherwise, is distinctly a sign of our times. The market is flooded with innumerable prints, couched in plausible language and clothed in a pseudo-scientific garb which are nothing but advertisements in disguise, designed to 'puff' nostrums, to 'boom' financial ventures, or to bring individuals into unmerited prominence. No wonder, therefore, that works such as this and the author's previous effort, should be, at the first glance, regarded with suspicion. The ingenuity of self-advertising charlatans and quacks is such, that, to a superficial observer, the line of demarcation between a genuine work on popular science and a clever prospectus of a vendor of pills, powders, or panaceas may often seem exceedingly faint. Now, whatever may be the deficiencies of the present treatise, to whatever criticism it may lay itself open in other respects, the absence of any ulterior sordid motive may honestly be claimed for it. The writer is not in need of cheap notoriety, nor, with the exception of the book itself, has he anything to sell or to extol."

Extract from Contents

Preface: Importance of the subject—Intellectual and psychic gymnastics—Health culture—Non-comatose suggestion and hypnotism.

Introductory: Cerebro-psychic effort—Association of ideas—Scientific application of natural laws—Ethics—Attainment of ideals—Cure of disease, mental depression, etc.—The conscientious medical practitioner's duty—Dr. Bernheim's case—Science and religion—Soul-training—"Christian Science," Medicine and Occultism—Melancholia, hypochondria and kindred psychic conditions—Chiromania—Cleanliness and diet—Sports and pursuits—Vicious habits.

Chapter I.: GENERAL NEUROPATHY—NEURASTHENIA—NEUROSIS.—Nervous enfeeblement — Self-indulgence — Richard Wagner a neurasthenic — Precocity and excesses—Craving for excitement—Auto-erotism—Noxious drugs—Urethral neurosis—The power of the mind—Charpignon's report—Lourdes and so-called miracles.

Chapter II.: HYSTERIA—AUTO-EROTISM.—Suggestibility—Symptoms and manifestations of hysteria—Definition of hysteria, Charcot's, Sydenham's, Freud's, Norman's, etc., etc.—Frequency of hysteria—Hysteria and the area of sexual life—Loss of will-power—Clownism—Fits—Treatment—Auto-Erotism—Sexual anomalies, etc.—Convention and reality—Ill-timed prudery—Hygienic treatment, etc.—Severity and leniency.

Chapter III.: SEXUAL NEURASTHENIA—PERNICIOUS HABITS, ETC.—CAUSES AND EFFECTS.—Apathy and despair—Self-destruction—Ignorant quacks—Dangers of exaggerations and fear—Harmful so-called "popular" literature — Malpractices in the young — Interesting statistics—Tabes dorsalis—Venereal diseases and spinal atrophy—Swelling of the nose a consequence—Radical cure—Abdominal pains in women—A wicked "sport"—On education—Loss of seminal fluid—Cases—Stammering—Leucorrhœa, etc.—Moral aspect.

Chapter IV.: SPERMATORRHŒA, ETC., ETC.—Healthy secretions—Mature and lawful love—Procreative potency—Treatment, etc.

Chapter V.: SEXUAL NEURASTHENIA IN ITS DIVERSE ASPECTS—ITS TREATMENT AND CURE—HYGIENE—DIET—CHANGE—SUGGESTION.—Muscular exercise—Athletics—Games—Regular work—"A reliable friend in need"—The most effective cure—Light-baths—Confinement after death—Uric acid—Cider-whey—The bugbear of impotence—The will—Impotentia cœundi and generandi—Dietetics—Constipation—Swedish drill—Electricity—On hypnotism and suggestion—Cases—A power for good.

Concluding Chapter: SUGGESTION—A MORAL STIMULANT AND CHARACTER-BUILDER.—Formulæ—"The phrase has become a fact"—The unconscious mind—Ethical training.

Appendix: Healthy reading — Good literature — Instances and recommendations, etc., etc.

The book addresses itself to both sexes, but will be sold to adults only.

THE PRESS.

Health and Strength Magazine :—"A comprehensive work on the natural treatment and cure of sexual neurasthenia, and kindred brain and nerve disorders. The distressing physical conditions dealt with in this work are dangers peculiar to the present mode of life in cities and large towns. The evils may be avoided if the individual has the necessary knowledge contained in this work."

Sandow's Magazine :—"The author of 'How to Acquire and Strengthen Will-Power' has just issued, under the title of 'How to Restore Life-Giving Energy,' a valuable book dealing with the power of suggestion on oneself or others. It cannot be disputed that many who may be strong in physique may yet be feeble in will. Such will welcome the professor's latest work. The author shows how, by the careful training of the mind, pernicious habits may be completely overcome by the means of hypnotic suggestion. No one can read it without feeling better for it, both mentally and morally. The book will undoubtedly meet with the success accorded to its predecessor."

Vitality :—". . . this valuable work . . . contains beautiful thoughts, and is the result of careful study. For instance, dealing with the power of the mind over disease, the writer says . . .

"Speaking of the power of faith in religion, which we must admit is a very difficult thing to handle, and perhaps one in which psychic research has a lot yet to learn, the writer says . . .

"Passing over the various chapters, which deal in a very masterly way with such subjects as Neuropathy, Hysteria, Sexual Neurasthenia, Impotence, etc., the reader is brought into touch with the most sacred subjects of a sexual character, and really sound teaching set forth, which is so framed that it fastens itself firmly upon the memory, compelling the reader to think . . .

". . . the truth is put forward in a most admirable way, and when we say this we mean it. For instance, speaking of the harm some medical men do when they advise . . . The writer quotes the following:

> "'I cannot but think it is of extreme importance not to allow a bugbear to be made out of that which on the face of the matter is God's provision that the unmarried shall not be harmed by perfect chastity.'

"There is something nice about the whole tone of the book that we like, and consider it a most excellent work for young men; it breathes out hope and health. . . ."

The Financial Standard :—"This work aims at dealing with the main lines of disease associated with the nervous and cerebral forces, which it discusses in a way that is comprehensible to the least informed on the subject. It forms one of the 'New Self-Help' Series, which are planned to offer general instruction on themes that are little known outside scientific circles, and which should have every encouragement for their dissemination. The language is chaste, and its general terms bear the impress of knowledge and advanced study."

Science Siftings :—" . . . No one can read 'Life-Giving Energy' without being the better for it in body and mind; and in those cases where there is any pandering to vicious practices, indulgence in slothful habits, or suffering from nervous ills, immediate benefit may be expected."

THE MODERN MEDICAL PUBLISHING CO.,
57/58, Chancery Lane, London, W.C.

Prof. R. J. EBBARD'S NEW WORK:

Mental Depression

Its Cause and Treatment without Drugs or Medicine.

MENTAL DEPRESSION is the curse of thousands of people's lives, and medical science so far has been powerless to adequately cope with the evil. Prof. Ebbard has made a special study of this form of malady and has succeeded in evolving a system of treatment which not only removes the trouble temporarily, but will effect a permanent cure. His method is the result of the researches of

MODERN MEDICAL-REFORM SCIENCE

of which Prof. Ebbard is the well-known exponent.

Price 2/6 net; post free 2/9

PERPETUAL HEALTH

How to Secure a New Lease of Life by the Exercise of

WILL POWER

IN FOLLOWING OUT

THE COMBINED "CANTANI-SCHROTH" CURE,

A new and invaluable Method of Treatment of Disease, enabling Health to be restored quickly, even though undermined by disorders of the gravest and most stubborn character, such as Gout, Rheumatism, Blood and Skin Diseases, etc.,

WITHOUT PHYSIC

By P. M. HEUBNER

TRANSLATED BY F. W. VOGT

New Edition. Price 2/6 net; post free 2/9

CONTENTS

I. CAUSES OF DISEASE—II. CANTANI AND HIS METHOD OF TREATMENT *(a)* Concreted Matter as the Engenderer of Disease *(b)* The Cantani Dietary—III. THE HIGHEST DIETIC WORLD-WISDOM—IV. SCHROTH'S DIETETIC AND PREVENTIVE CURE *(a)* Schroth's View of the Nature of Disease *(b)* Schroth's Compresses *(c)* Schroth's Dry (or Thirst) Diet *(d)* The Effects of the Schroth Cure—V. THE COMBINED CANTANI-SCHROTH CURE—VI. IMPORTANT HINTS TO VEGETARIANS—VII. CASES TREATED SUCCESSFULLY BY DR. A. CANTANI'S METHOD—VIII. SUCCESSFUL CURES BY SCHROTH'S METHOD.

THE MODERN MEDICAL PUBLISHING CO.,
57/58, Chancery Lane, London, W.C.

Demy 8vo, 2/- net; 2/3 post free.

CLUES TO CHARACTER

BEING A

COMPLETE TEXT-BOOK

OF THE

LAWS OF SCIENTIFIC PHYSIOGNOMY
AND GRAPHOLOGY

BY

R. DIMSDALE STOCKER

AUTHOR OF "THE HUMAN FACE," "PHYSIOGNOMY, ANCIENT AND MODERN," "SUB-CONSCIOUSNESS," ETC., ETC.

THE "NEW SELF-HELP" SERIES. No. 4.

CONTENTS

CHAP.
1. The Laws of Physiognomy: Its Rationale.
2. The Sexes Compared.
3. Temperaments.
4. Form.
5. Colour.
6. Size and Proportion.
7. Quality.
8. Health.
9. The Head.
10. Facial Angles.
11. The Brow.
12. The Nose.
13. The Eyes.
14. The Eyebrows.
15. The Mouth and Lips.
16. The Cheeks and Molar Bones.
17. The Jaws and Chin.
18. The Ears.
19. The Neck.
20. Lineaments.
21. The Hand.
22. GRAPHOLOGY.

With Numerous Facsimiles and a Character-Sketch of H.M. King Edward VII. and H.R.H. the Princess of Wales.

This is a practical book, not a treatise based on a sham science, but on the recognised Laws of Scientific Physiognomy and Graphology, sciences which have been neglected for centuries to the detriment of thousands.

It shows you *how* to study Human Nature and Soul-Life; *how* to read strangers and tell friends from foes; *how* to know just what people are at first sight; *how* to avoid disappointments and sorrows, losses and deceptions.

It deals with a science that does not require hours of tedious study, a course of expensive lessons, or elaborate memorising.

It can be perused in a short time, and a wealth of **practical knowledge** and **life-experience** can thus be gained without having to buy them at a high figure and at the expense of happiness and health. It has, therefore, been included in the well-known "New Self-Help" Series.

No matter where you are:

AT HOME,	**OUT WALKING,**
IN YOUR OFFICE,	**IN THE OMNIBUS,**
IN THE TRAIN,	**AT A PARTY,**
AT A MEETING,	**AT COURT,**

IN SHORT, EVERYWHERE,

you want to know **HOW TO FATHOM MANKIND.**

Mr. Stocker's epoch-making work gives you **Clues to Character-Reading in**—

THE HEAD,	**THE FACE,**
THE HAND,	**THE HANDWRITING,**

etc., etc.

It teaches you how, at a glance, you may sum people up. To the business man this work is, indeed, invaluable; it will save him losses, and thus become **a real business asset.** To him it is of vital importance to be able to *read* the people whom he comes in contact with.

To the leisured it affords the most **delightful study and profitable pastime**; for what is more fascinating and what offers more real and lasting interest, than the study of—

HUMAN NATURE AND PRACTICAL PSYCHOLOGY.

THE PRESS.

Weldon's Lady's Journal:—"A deeply interesting book. . . . Scientific physiognomy is treated here in a condensed form, and its application to temperament, health and disposition is expounded in masterly fashion. . . . Graphology, with illustrations of handwritings, is also included, making a volume full of vital and absorbing interest."

Health and Strength Magazine:—". . . A most thoughtful work on the subject of character indication. . . . It is most interesting and lucidly compiled."

Science Siftings:—"One of the best little guides on the subject that has come our way is . . . it certainly embodies just those points in the study of his fellow-man likely to help the struggler along the road of life."

Morning Post:—"Graphology has during recent years attracted considerable attention, and those who desire a work in which its chief principles are clearly expounded would do well to study this publication."

Bookman:—"A popularly written work on this somewhat absorbing subject."

Freemasons' Chronicle:—"We can heartily advise our readers to buy a copy of this book and examine it for themselves."

Lady's Pictorial:—"He gives interesting lecturettes on this subject, and his delineations of character from the face are wonderfully clever. He has a very keen insight into character, and I have heard him give very clever and accurate descriptions of people simply from their photographs."

THE MODERN MEDICAL PUBLISHING CO.,
57/58, Chancery Lane, London, W.C.

Crown 8vo, handsomely bound, 3s. 6d. net; post free 3s. 10d.
(Postage for abroad, 6d.)

Sub-Consciousness

STUDIES AND LESSONS
IN THE LARGER LIFE

BEING

A Series of Practical Instructions in the Application of the New Psychology to Daily Life

BY

R. DIMSDALE STOCKER

AUTHOR OF "CLUES TO CHARACTER," "TELEPATHY," "FACE AND PHYSIQUE," "OUT OF THE HEART," ETC., ETC.

CONTENTS

LESSON
1. THOUGHT CURRENTS AND HOW TO DIRECT THEM.
2. TELEPATHY IN ITS PRACTICAL APPLICATION.
3. IMAGINATION, ITS POSSIBILITIES, SCOPE, &c.
4. THE SLEEP WORLD.
5. HYPNOTISM AND SUGGESTION.
6. THE WONDERS OF THE WILL.
7. HEALING, AND THE LAW OF MENTAL MEDICINE.
8. ***The Making of a Genius.***

THE "NEW SELF-HELP" SERIES. No. 5.

The proudest discovery in **practical, not speculative, Psychology** of the last few years has resulted in the indisputable establishment of the greatest mental factor and power, viz. :—

The Sub-Conscious Mind.

The value of this discovery will at once strike every thinking person as inestimable, and its practical application in everyday life, in its manifold aspects, as illimitable. It is the Sub-Conscious Mind that pervades our whole being, and directly influences our body and soul, in fact constitutes our **ego.**

The **Conscious Mind** is a dwarf compared with the giant "**Sub-Conscious Mind.**" But whilst the former is alert and ever-responsive, the latter is prone to become slovenly and to stubbornly move in the same old groove, whether good, bad, or indifferent ! It, therefore, behoves the dwarf to coax and gently persuade the giant out of his ill-chosen habits, and to stimulate him into fertile and salutary activity, not by impatient force, but by ingenious and subtle tactics. And behold :

The Secrets of Happiness, Health, Mental Strength and Superiority, and last, not least—

BEAUTY AND NOBILITY . .
OF SOUL AND CHARACTER

lie revealed before us.

These latest achievements of Science are well known and appreciated in professional circles, but as regards the general public—the host of moral and physical sufferers most deeply concerned in these discoveries—they have had, as yet, practically no knowledge of them. It is the purpose and ardent desire of the author to supply this long-felt deficiency by giving his readers some practical hints as to

Self-Improvement in its Largest Sense

in his present treatise on "Sub-Consciousness."

No other book which has been published hitherto, in either America or England, has succeeded in enunciating the Science and Philosophy of this department of research ; nor has any other work been issued which has set forth in clear, understandable, non-technical terms the **Utility and Application** of such knowledge in **Daily Life,** and to a **Practical Purpose.**

This is not a volume of idealistic conjecture and verbosity, but a practical and popularised text-book on Modern Science, the **Immense Importance and Scope** of which a cursory glance over the table of contents will suffice to show.

The well-known author, whose previous efforts have been so well appreciated by the public and press, explains in eight lessons the diverse phenomena, as indicated on previous page, and gives practical suggestions and instructions for directing them to given ends.

This volume of lessons forms a comprehensive system of instructions complete in itself, and, therefore, does away with the often considerable outlay for expensive separate courses.

THE MODERN MEDICAL PUBLISHING CO.,

57/58, Chancery Lane, London, W.C.

The Truth about Vaccination

Its Effects and Possible Consequences

By W. V. FREDERICKS

6d. net (postage 1d.).

Science Siftings writes: "... is a booklet that fairly sums up the pros. and cons. of the subject it professes to treat. The book is worthy of a wide public ..."

P.O.P. writes: "Speaking of Jenner's great discovery, I may call attention to the pamphlet issued by The Modern Medical Publishing Co., 57 and 58, Chancery Lane, W.C. It is an epitome of hard facts pointing to the diminution of the scourge of smallpox since the introduction of vaccination. ..."

Christian Science Medicine and Occultism

By ALBERT MOLL, M.D. Berlin.

ONLY AUTHORISED TRANSLATION FROM THE GERMAN BY F. J. REBMAN.

Contents.

Christian Science in America—Enlightened Germany—Mrs. Eddy—Miss Schoen—Her Competitors—Method of Treatment—Treatment from a Distance—Treatment of Children, Lunatics, and Animals—Christian Science as a Universal Remedy—Payment—Meetings of Scientists—Course of Instruction—Christian Science and the Bible—Development of Sects—Christian Science and Medicine—Explanation of Success in Healing by Suggestion—Results in Hysteria, &c.—Results in Organic Disease—Alleged Healing of Organic Disease—Spontaneous Healing—Failures—Christian Science and Occultism—Effect from a Distance—Animal Magnetism—Spiritualism—Relations of Occultism to Christian Science—Good Faith or Premeditated Fraud?—Danger of Christian Science—Increase of Occultistic Tendencies—Intellectual Level of Spiritualists—Alleged Scientific Tests.

6d. net (postage 1d.).

C. J. BURT (Dept. B. H.),
57/58, Chancery Lane, London, W.C.

TONIC-TEA

AS RECOMMENDED BY

Prof. R. J. EBBARD.

Per package, 2s. (postage, 2d.; for abroad, 1s.).

Prof. RICHARD J. EBBARD'S

Radical Cure of Constipation

A TREATMENT without Drugs or Medicines.

3s. 2d. post free.

POSTAGE FOR ABROAD 1s. EXTRA.

Complete with a Special Blend of Tea for this particular complaint, booklet, instructions, formulæ, etc.

One of my clients writes:

"TRURO.

"DEAR SIR,—I am completely cured of a long-standing case of constipation by using the method recommended by the Nancy School, as set forth in Prof. Ebbard's work. For the past six weeks I have not missed a single day, having had a free passage *regularly at 7 a.m.* This was altogether beyond my highest hopes. Now the bowels act regularly without suggestion. I still keep up the use of the tea, and intend to do so for some time to come. It is a preparation of great value.—Yours gratefully, ARTHUR S. COOMB."

NON-COMATOSE SUGGESTION

ACCORDING TO

THE NANCY METHOD

By Prof. RICHARD J. EBBARD.

1s. net (postage, 1d.).

EAU DE FLEUR D'ORANGER

(Orange Blossom Water)

is the most

NERVE-SOOTHING BEVERAGE

in existence.

No one subject to NERVOUS IRRITATION should be without it.

In France this wonderful Extract from the Orange Blossom has always been known and highly appreciated, so much so that no French lady would ever be without her **Eau de Fleur d'Oranger.** In England, however, this delightful beverage seems to be practically unknown, although there are a few inferior **preparations** from the **oil** of the Orange Blossom. In putting our

GENUINE FRENCH Eau de Fleur d'Oranger

before the public, we are confident of filling a long-felt want.

Eau de Fleur d'Oranger is neither a drug, physic, nor a medicine; it is simply **a most palatable, refreshing, and soothing Tonic,** infinitely superior to Lemonade, Lime Juice, &c., when taken after

> a physical or moral strain, overwork, fright, anxiety and excitement, trouble and anger, quarrels, late hours, dancing and exhausting pleasures, walking tours, hot weather, fatiguing travelling, &c., &c., &c.

Professor R. J. Ebbard recommends its use in connection with "Suggestion" in his work **"Will-Power"** against

> insomnia, headaches, nervous pains in the stomach, palpitation of the heart, and congestion.

It may also be given to Children.

When once you have tried it you will never be without it.

Price per Bottle, 2s. 6d.; 2s. 10d. post free. (Postage for Abroad, 1s.)

~~**Price per Dozen, 27s.**~~

INSTRUCTIONS FOR USE:

Take a teaspoon full of Eau de Fleur d'Oranger in a tumbler of water. A small addition of sugar optional.

Beware of imitations, therefore send all your orders **direct** to

THE MODERN MEDICAL PUBLISHING CO.,

57/58, Chancery Lane, London, W.C.

WOL-ROOT

. . . FOR . . .

THE HEAD and THE HAIR.

You have no conception of the luxury of this Toilet Preparation.

It creates a healthy delicious glow, an exhilarating, soothing, refreshing effect on the head, obtainable by no other means.

The regular use of **WOL-ROOT** each morning makes you feel refreshed and fit for your day's work.

It ensures a perfectly clean white scalp.

It entirely removes and prevents scurf.

It stimulates your senses.

It Promotes the Growth of Hair.

In saying this we do not mean one or two tentative bristles or even a bit of fluffy down.

WE MEAN and we say in the Strongest and **Plainest Language Possible** that if the roots of your hair be not hopelessly dead, **WOL-ROOT**, consistently used, will **INDUCE, DEVELOPE, FEED, AND PRESERVE GOOD THICK, NATURAL GLOSSY HAIR.**

WOL-ROOT is to the Hair what Phosphates are to the Blood.

It is a unique Tonic embodying all the active and essential principles of vitality.

It checks all tendency to greyness.

It is, in fact, a **Vitalizing Tonic Food** of superlative excellence.

IMPORTANT NOTICE.

Every Genuine Bottle has the Name of the Sole Makers and Inventors printed on the Label—WARNER-OLIVER, LIMITED.

The Modern Medical Publishing Company having tested WOL-ROOT, and found it most recommendable, has put it on its agency list, and takes great pleasure in introducing WOL-ROOT to its clients. A **Trial Bottle** will be sent Post Free on receipt of **1/10** in the United Kingdom, and **2/6** to the Colonies or for abroad.

Read This.

LEICESTER, Feb. 2, 1905.

To the Manager of "Health and Strength Magazine."

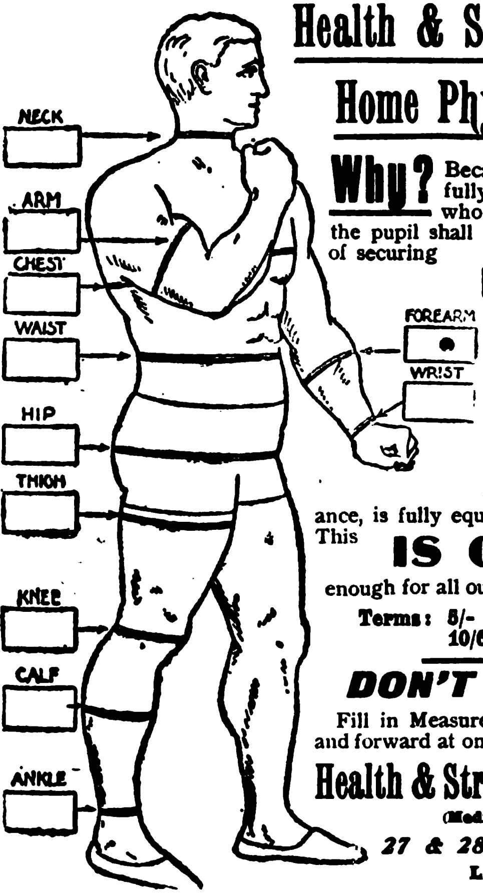
DEAR SIR,—I have pleasure in enclosing my measurements, etc., on completion of my three months' training under your system of Physical Culture. You will again see I have made good progress. I feel altogether different to what I did when I first started; my digestion is much sounder, and I feel stronger in every way. My measurements show a good all-round increase, and all my clothes seem as though they are getting too small for me. I have carried out your instructions to the best of my ability and my efforts have been rewarded with success. I SHALL ALWAYS FEEL VERY GRATEFUL FOR WHAT YOU HAVE DONE FOR ME, and I shall at all times recommend your system to my friends, knowing that IF THEY FOLLOW OUT YOUR ADVICE THEY ARE SURE TO IMPROVE THEIR HEALTH AND STRENGTH.

Sincerely yours, B. L——t.

We have innumerable Testimonials like this of our

Health & Strength System of

Home Physical Culture.



Why? Because each Case is carefully dealt with by experts, who spare no trouble that the pupil shall have every opportunity of securing

PERFECT HEALTH

There is no need to pay heavy fees, or purchase expensive apparatus, any one possessing an Exerciser, and in special instances some other necessary appliance, is fully equipped for our course. This

IS CHEAP

enough for all our readers to go in for.

Terms: 5/- One Month.
10/6 Three Months.

DON'T DELAY!

Fill in Measurement Form herewith, and forward at once, with fee, to

Health & Strength Magazine
(Medical Dept.),
27 & 28, FETTER LANE,
LONDON, E.C.

Send P.O. 3/6 for Annual Subscription to "Health and Strength Magazine."

COUNTWAY LIBRARY
HC 2IMG 1

L 3751
The bedrock of health, based on1906
Countway Library BDX8611
3 2044 045 573 649

t. 3751
The bedrock of health, based on1906
Countway Library BDX8611
3 2044 045 573 649